



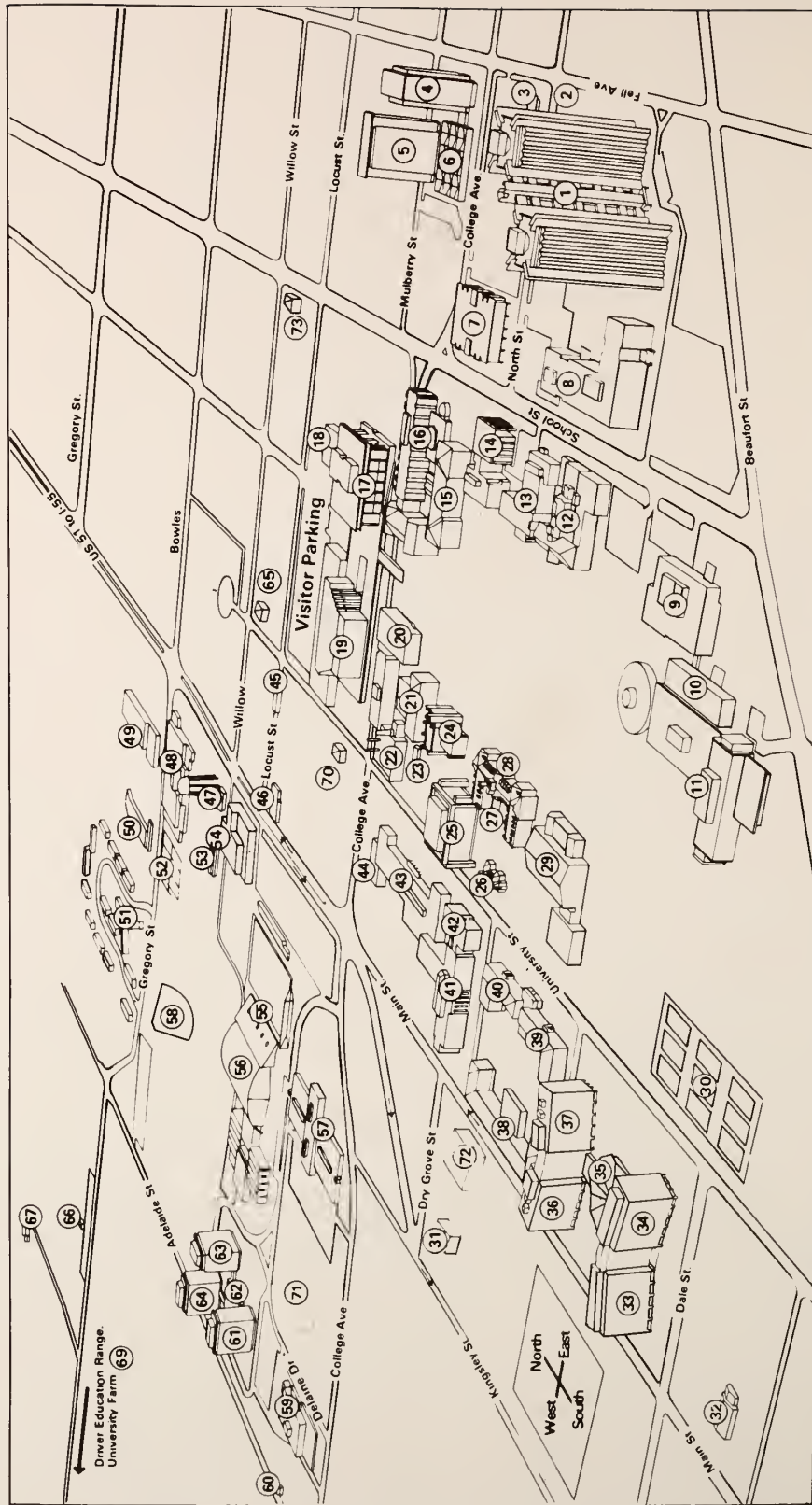
Graduate

C A T A L O G

1988-1989

Campus Guide

Illinois State University



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Illinois State University

Graduate Catalog

1988-89

Effective May 16, 1988

The general policies, regulations, calendar, fees and courses contained in this catalog are subject to change without notice at the discretion of Illinois State University.

Illinois State University is an Equal Opportunity/Affirmative Action institution in accordance with Civil Rights legislation and does not discriminate on the basis of race, religion, national origin, sex, age, handicap, or other factor prohibited by law in any of its educational programs, activities, admissions or employment policies. Concerns regarding this policy should be referred to the Affirmative Action Office, Illinois State University, Normal, Illinois 61761-6901, phone 309/438-7657. The Title IX Coordinator and the 504 Coordinator may be reached at the same address.

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University Calendar, 1988-1989

1988 Summer Term

May 16-August 5	Summer Term.
May 30	Memorial Day Holiday.
June 3	Last Day to apply for graduation in August.
July 4	Independence Day Holiday.
July 29	Last day to file thesis in Graduate Office for August graduation.
August 6	Degrees awarded.
August 8	Grades due at noon.

1988 First Semester

August 18-20	Residual Registration and program change. Students eligible for Continuous Registration must be registered by August 20.
August 22	Classes begin.
September 5	Labor Day holiday.
September 7	Plan of Study and Thesis Proposal approval form due in Graduate Office for any student graduating in December, 1988.
September 14	Last day to apply for December graduation.
September 14	Last day to apply to departments to take comprehensive examinations.
October 14	Fall Vacation Day.
October 15	First half of semester ends.
November 23	Thanksgiving vacation begins at 5:30 p.m.
November 28	Classes resume, 8 a.m.
December 9	Last day to file thesis in Graduate Office for December graduation.
December 10	Last day of classes.
December 11	Reading Day.
December 12-16	Examination period.
December 17	Degrees awarded.
December 20	Grades due at Noon.

1989 Second Semester

January 12-14	Residual Registration and program change. All students eligible for Continuous Registration must be registered by January 14th.
January 16	Martin Luther King Jr. Holiday.
January 17	Classes begin.
January 31	Plan of Study and Thesis Proposal approval form due in Graduate Office for any student graduating in May, 1989.
February 7	Last day to apply for graduation in May.
February 7	Last day to apply to departments to take comprehensive examinations.
March 11	Spring vacation begins at Noon.
March 11	First half of semester ends.
March 20	Classes resume, 8 a.m.
April 5	Plan of Study and Thesis Proposal approval form due in Graduate Office for any student graduating in August, 1989.
May 1	Last day to file thesis in Graduate Office for May graduation.
May 6	Last day of classes.
May 7	Reading Day.
May 8-12	Examination period.
May 13	Commencement.
May 15	Grades due at 5:00 p.m.



GENERAL INFORMATION

Board of Regents

The Board of Regents is the governing board for Illinois State University, Northern Illinois University, and Sangamon State University. Members of the Board are:

Carol K. Burns, Peoria, Chair
D. Brewster Parker, Lincoln, Vice Chair
Jerome R. Bender, Rockford
Clara S. Fitzpatrick, Evanston
L. Milton McClure, Beardstown
Sylvia Nichols, Lawrenceville
Hal Riss, Shirley
Harry L. Wellbank, Crystal Lake
James L. Wright, Chicago

One student, non-voting member from each university in the Regency System.

Chancellor: Rod Groves, Springfield

University Administrative Officers

Lloyd I. Watkins, President
David A. Strand, Vice President and Provost
Richard D. Koshel, Associate Provost for Research and Dean of Graduate Studies
Elizabeth A. Chapman, Dean, College of Applied Science and Technology
Virginia L. Owen, Dean, College of Arts and Sciences
Andrew T. Nappi, Dean, College of Business
C. Edward Streeter, Interim Dean, College of Education
Charles W. Bolen, Dean, College of Fine Arts
Calvin Stockman, Dean, College of Continuing Education and Public Service
Fred M. Peterson, University Librarian
Warren R. Harden, Vice President for Business and Finance
Neal R. Gamsky, Vice President and Dean of Student Affairs
Charles E. Morris, Vice President for Administrative Services
Richard T. Godfrey, Director of Institutional Advancement

Members of the Graduate Council

Admissions Committee

Norman Bettis(1988)
James W. Webb(1988)
Dixie L. Mills(1989)
Joseph L. Grabill.(1990)

Curriculum Committee

Teresa M. Palmer(1988)
Patricia K. Monoson(1988)
Donald J. Armstrong(1989)
Roy C. Treadway(1990)

Membership Committee

Lucia C. Getsi(1988)
Michael P. Dumler(1988)
Jeanne B. Morris.(1989)
Richard A. Salome(1990)

Research Committee

Connie J. Ley(1988)
Walter B. Mead(1988)
G. Alan Hickrod.(1989)
Edward L. Schapsmeier(1990)

Student Members

Susan Clark
Keith Powell
Pat Shelton

University Telephone Numbers

Directory Assistance 438-2111
Admissions Office 438-2181
Graduate School 438-2583

The University

Illinois State University was founded in 1857 as the first public institution of higher learning in Illinois. The University has a proud heritage in that the documents establishing the pioneer educational undertaking were drafted by Abraham Lincoln. Today, Illinois State University is, as its founders dreamed, a comprehensive institution with degree programs at the bachelor's, master's, and doctoral levels.

One hundred ninety-two degree programs are offered in thirty-three academic departments which are organized into five colleges. The nearly 20,000 students have a full range of study options in business, liberal arts, science, fine arts, education, applied science, technology, and pre-professional fields. A library with collections totaling more than 1.8 million complements a modern academic complex of 56 major buildings on the 850-acre campus.

The Central Illinois community of Normal-Bloomington, home of Illinois State University, has a population of 80,000.

The Graduate School

The University began offering graduate work in 1943, when it introduced master's degree programs in several departments. The number of degrees has increased gradually since that time, with doctoral work being introduced in 1962.

Today the Graduate School offers master's degree work in more than thirty academic fields and professional education areas. The Master of Fine Arts degree is offered in

Art and Theatre. Doctoral programs are offered in Art, Biological Sciences, Curriculum and Instruction, Educational Administration, Economics, English, History, Mathematics, and Special Education.

The members of the graduate faculty of each department are listed in the departmental sections. The entire faculty of the Graduate School is shown in a section after the **Departments and Course Offerings**.

It is the chief aim of the Graduate School to provide an atmosphere in which competent students may join a qualified faculty in extending their fields of knowledge, and where they may share experience in research leading to professional improvement and scholarly achievement.

Graduate Student Association

The Graduate Student Association (GSA) is an academic, political and social organization composed of all graduate students. The GSA provides a forum for graduate students to express their concern for the welfare of graduate students, develop and disseminate ideas for improvement of graduate education, and to assist in the orientation of graduate students to the University. The governing body of the GSA is the Graduate Student Advisory Group (GSAG), which consists of one member from each department on campus that has a graduate program. The GSAG meets bi-monthly to conduct its business. In addition, the Chairperson of the GSAG shall convene a general meeting of the Graduate Student Association during the Fall and Spring semesters for the purpose of reporting GSAG activities and providing a forum for graduate students to express their concerns. Two members of the GSAG also serve on the Graduate Council which is the policy making body of the Graduate School.

Accreditation

Illinois State University is accredited at the doctoral level by the North Central Association of Colleges and Secondary Schools. It is also accredited by the National Council for Accreditation of Teacher Education. The University holds institutional memberships in the American Council of Education, the American Association of Colleges for Teacher Education, and the Council of Graduate Schools of the United States.

Library Resources

The library building, completed on July 1, 1976, provides study space for 2,700 students and shelving for some 1.8 million individual items. Each of the six floors of the Library provides a variety of study areas—individual carrels, small tables, faculty studies, conference rooms, and lounge chairs—all located adjacent to books, periodicals, and other library materials. These are arranged according to subject—the humanities, the social sciences, the sciences, and education-psychology on separate floors, where subject reference service and on-line data base searches are also provided. A seventy-unit personal computer study area is available for use on the main floor. A General Information and Reference Area on the main floor provides an initial contact reference service for students. However, graduate students should familiarize themselves with the specialized services which are offered in the divisional areas by subject librarians.

The collections of the University Library include 1,069,249 cataloged books and 359,235 U.S. Government publica-

tions, a total of 1,428,484 volumes. Many thousand additional publications are available in miniature in 59,867 reels of microfilm and 1,513,602 microcards, microfiche, and microprints. The Map Collection contains 426,534 maps and other cartographic items, and a record collection of 22,851 recordings is available.

The Library's membership in the Center for Research Libraries makes resources of that 3,000,000-volume collection available for members of the faculty and students. The Library provides access to other libraries throughout the country as a participant in OCLC and in Illinois through the Illinois Library Network and the Illinois Library Computer System. An Interlibrary Delivery System brings books from other Illinois libraries to the campus daily.

University Museum

The University Museum's complex of five museums represents learning centers serving the University, schools in the surrounding area, and the general public. Objects from the permanent collections, as well as loan materials, are displayed in a continuing series of instructional exhibitions. The purpose of the University Museum is to preserve, increase, and disseminate knowledge of the artistic, natural, and cultural history of Illinois and the world. To accomplish this purpose, The University Museum collects, preserves, studies, interprets, and utilizes tangible objects in programs of exhibitions, education, and research. The University Museum offers opportunities for students to work with collections through museum employment and class assignments.

In addition to the Illinois State University Museum there are four satellite facilities. They are 1) Ewing Museum of Nations, 2) Eyestone One-Room School, 3) Stevenson Memorial Room, and 4) Hovey Hall President's Gallery.

Semester Plan and Summer Session

The University is operated on the semester plan and provides, in addition to its fall and spring semesters, a summer session with courses of varying lengths, and a variety of short-term offerings. During the summer session, a student may register for one, two, three, or four-hour courses at the rate of one hour of credit per week.

The Summer Class Schedule is issued annually in March and may be obtained by writing to the Office of Admissions and Records. The schedule contains information on the cost, schedule of classes, and special features of the summer session, such as short courses and workshops.

Evening, Off-Campus Classes

In addition to courses offered during the regular school day, evening classes are scheduled both on-campus and off-campus during the school year. Extension courses are also scheduled during non-traditional hours and on weekends. **For courses offered by Illinois State University, no differentiation is made between credits earned on-campus and off-campus.** Inquiries concerning off-campus classes should be directed to the College of Continuing Education and Public Service, Hovey 401, or telephone 309/438-8691. Information about such offerings is available in tabloids and brochures published by the College each semester. Non-credit courses and conferences are scheduled also by the College of Continuing Education and Public Service throughout the calendar year.

COSTS AND PAYMENT POLICY

Tuition and Fees

Tuition and registration fees must be paid at or near the opening dates of the semester by the dates specified in the Class Registration Directory. Tuition and fees for 1988-9 were not established at the time this catalog went to press and are subject to change at any time by action of the Board of Regents.

Tuition and Fees

Full-Time Costs Per Semester (12 hrs. or more)

Resident Tuition*	\$ 744.00
Non-Resident Tuition*	2232.00
Athletic and Service Fee	40.00
General Activity	21.25
Health Service	29.25
Bone Student Center	43.00
Recreation and Athletic Facilities	18.00
Insurance	44.00
Arena	35.00
Grant-in-aid	1.25

Part-Time Costs Per Semester

	Part-Time (9-11 hrs.)	Part-Time (1-8 hrs.)
Resident Tuition*	\$ 62.00/hr.	\$ 62.00/hr.
Non-Resident Tuition*	186.00/hr.	186.00/hr.
Athletic & Service**	21.50	21.50
General Activity***	6.50	6.50
Health Service	29.25	
Bone Student Center	21.50	21.50
Recreation and Athletic Fac.	9.00	9.00
Insurance ^o	44.00	
Arena	17.50	17.50

*Graduate Assistants see Employment section of this catalog.

**Students registered for fewer than 12 hours pay the \$21.50 Athletic and Service Fee and are admitted to athletic events, for which admission is charged, at a rate which is midway between the price charged a full-time student and the adult general admission ticket holder. Part-time students registered for more than 6 but fewer than 12 hours may elect to pay the Athletic and Service Fee of \$40.00 and be entitled to the same privileges as full-time students for all athletic events.

***Students registered for more than six but fewer than 12 hours may purchase an activity ticket by paying the General Activity Fee of \$21.25. The amount of this fee is tentative pending Board of Regent's approval. Payment of this fee by part-time students does not extend the privilege of playing at the Golf Course for student rates.

Summer Session Costs

The 1988 summer session costs for tuition and fees are \$74.00 per semester hour for resident students and \$198.00

for non-resident students. The maximum charge for the full summer session is \$666.00 for resident students and \$1782.00 for non-resident students. Students enrolled for 6 semester hours or more and graduate assistants with tuition waivers in effect on the eighth calendar day of the session will pay an additional \$33.00 for insurance.

Auditors

Fees for students who take all courses as auditors without credit:

Tuition per hour (Spring 1988)	\$ 62.00
Maximum charge for a semester	744.00
Maximum charge for summer session	558.00

Other Fees and Expenses

Late registration and/or late payment fee	\$ 10.00
—charged after scheduled dates	
Master's Thesis 499.01 (Audit)	62.00
Doctoral Dissertation 599.01 (Audit)	62.00
Graduation fee	20.00
—must be paid before published deadline	
Doctoral dissertation fee (microfilming)	40.00
Doctoral dissertation fee (copyright)	20.00
—optional	

Material charges listed under course offerings in the University catalogs are optional. A student may supply his or her own materials and request the instructor, in writing, to waive the material charge.

Resident/Non-Resident Status

A student who is not a resident of Illinois pays the non-resident tuition fee as indicated. All other fees are the same for non-residents. A student under 18 years of age is considered a non-resident if the student's parents are not legal residents of Illinois. A student over 18 years of age is considered a non-resident if the student is not a legal resident of Illinois at the time of registration. The Director of Admissions and Records is responsible for applying out-of-state fees. Tuition and fees are subject to change by action of the Board of Regents and the General Assembly.

Payment of Tuition and Fees

Students who advance register for a semester will be billed for tuition and fees before the beginning of the semester. If the bill is not paid by the date it is due, the student's classes will be cancelled and the student must re-register at the beginning of the semester. A student who registers for classes at the beginning of the semester must pay the bill at that time. The **Class Registration Directory** lists specific dates.

Refund Policy

A student who has registered, and officially withdraws from the University, may receive a refund of tuition and fees including any advance deposit thereon, according to the following schedule:

If withdrawal is prior to the first regularly scheduled class day—all tuition and fees.

If withdrawal is within the first fifteen calendar days after the first regularly scheduled class day—all tuition and fees less a \$30.00 service charge.

If withdrawal is after the fifteenth day but no later than the thirtieth calendar day after the first regularly scheduled class day—twenty-five percent of the tuition charge only.

The University may designate shorter refund periods for summer session, special courses, and short courses.

A student, who changes from full-time to part-time status, or a part-time student reducing the number of credit hours carried, may receive a refund of tuition and fees according to the following schedule:

If the reduction is on or before the fifteenth calendar day after the first regularly scheduled class day, all tuition and fees not applicable to the new part-time status are refunded. A student receiving a refund of fees will not be eligible for activities and benefits covered by such fees. A service charge is not applicable to a student who changes from full-time to part-time status.

If the reduction is after the fifteenth but no later than the thirtieth calendar day after the first regularly scheduled class day, twenty-five percent of the difference in tuition charge only is refunded. The student would continue to be eligible for the activities and benefits covered by the other fees paid.

The University may designate shorter refund periods for summer session, special courses, and short courses.

The student may receive a refund of the insurance fee if the student demonstrates equal or better insurance coverage on or before the fifteenth calendar day after the first regularly scheduled class day.

A student whose course of study requires absence from campus for the entire term shall, upon proper application, receive refund of activity, health service, and athletic fees. The application for such refund must be made on or before the fifteenth calendar day after the first regularly scheduled class day.

Pursuant to guidelines established by the University, part or all of a student's tuition and fees may be refunded because of the student's death or disability, extreme hardship, or institutional error.

A student may receive a refund of tuition and fees if a scholarship is awarded which covers those fees. The application for refund must be made no later than 60 days after the close of the session.

A student may receive a refund of tuition and fees if the University declares him/her ineligible for enrolled status prior to the first day of regularly scheduled class.

The statement of the refund policy for university housing is a part of the housing contract.

Confidentiality of Student Records

In accordance with the Family Educational Rights and Privacy Act of 1974, Illinois State University students have the right to review, inspect, and challenge the accuracy of information kept in a cumulative file by the institution unless the student waives this right in writing. It also insures that records cannot be released in other than emergency situations without the written consent of the student except in the following situations.

A. to otherschool officials, including faculty within the educational institution or local educational agency who have legitimate educational interests;

B. to officials of other schools or school systems in which the student intends to enroll, upon condition that the student be notified of the transfer, receives a copy of the record if desired, and has an opportunity for a hearing to challenge the content of the record;

C. to authorized representatives of 1) the Comptroller General of the United States, 2) the Secretary, 3) an administrative head of any educational agency, or 4) State educational authorities;

D. in connection with the student's application for, and receipt of, financial aid;

E. where the information is classified as directory information. The following categories of information have been designated by the Univer-

sity as directory information, name, address, telephone number, major, class, participation in officially recognized activities and sports, weight and height of members of athletic teams, dates of attendance, degrees and awards received, and the most recent previous educational agency or institution attended by the student. If you do not wish such information released without your consent, you should notify the Office of Admissions and Records prior to the first day of classes.

Questions concerning this law and the University's policy concerning release of student information and the procedures for contesting the content of cumulative files may be directed to the Office of Admissions and Records, Hovey Hall 201, 438-2181.

STUDENT SERVICES

Student Health Program

The Student Health Program consists of two components: 1. The On-Campus Health Service (a medical clinic) and 2. A comprehensive low cost Student Health and Accident Insurance Plan that supplements services available through the Student Health Service. All students who register for 9 or more semester hours during the first and second semesters (1 or more for the summer session) and all graduate assistants with a tuition waiver pay a Health Service Fee. Regarding health insurance, all students who register for 9 or more hours during the first and second semesters by the fifteenth calendar day of classes (or for 6 or more hours by the 8th day of the variable length summer session) and all graduate assistants with tuition waivers are assessed a health insurance premium.

On-Campus Health Services

Payment of the **Health Service Fee** entitles the student to use services at the on-campus Student Health Center for the entire session. Students who register for less than 9 semester hours during the first and second semester have the option of paying the health fee within the first 15 calendar days of classes or obtaining service on a "pay-as-you-go" (fee-for-service) basis. Spring semester students who do not plan to attend the summer session classes (but are registered for fall) may obtain prepaid summer health care if they pay the appropriate health fee by the 8th day of the summer session. Spouses of full-time enrolled students are eligible to use the services of the Health Center if they pay the health fee within the above deadlines and have health insurance comparable to the ISU plan. All optional health fees are payable at the Student Health Center.

The Student Health Service is located in the Rachel Cooper wing of Fairchild Hall in the center of campus. The program is fully accredited by the Accreditation Association for Ambulatory Health Care, Inc. Health care at the clinic is the same as that offered by most private general physicians. It is staffed by licensed physicians and registered nurses. Services also include a diagnostic laboratory, health education, x-ray, pharmacy, and infirmary. A registered nurse is on duty at all hours of the day and night during fall and spring semesters except for official University vacation periods. Complicated illnesses or injuries requiring surgery or long term care will usually be referred to an outside physician. New students who have chronic medical conditions such as diabetes, ulcerative colitis, or epilepsy, which require long term and projected treatment, should retain the services of private physicians for the continuing supervision and management of their condition. The Health Service will be glad to cooperate, furnish supportive care and assist the student's physician in the student's care if the private physician furnishes written findings and instructions. There are competent medical specialists and two hospitals in the Normal-Bloomington area well able to handle medical problems should they arise.

Student Health and Accident Insurance

The **Student Health Insurance Fee** provides a health and accident insurance policy intended to meet the needs of students without other insurance or to provide 100 percent coverage for insured expenses by coordinating with a family policy. Coverage is world-wide. The policy includes a \$100,000 maximum per condition and \$1000 stop loss provision designed to provide catastrophic coverage while limiting out-of-pocket expenses. The schedule of benefits includes services for hospital inpatient and outpatient use including emergencies, surgical and anesthesia fees, doctor's charges, consultation expenses, lab and x-ray expense, and ambulance services. A complete schedule of benefits may be obtained from the Office of Student Insurance, 114 Rachel Cooper Building.

Coverage for a student's qualified dependents may be obtained at additional cost if an application is submitted to the Office of Student Insurance within the first 15 calendar days of each semester (8th day of the summer session) or upon acquisition of a new dependent. Student insurance coverage begins 48 hours prior to the first day of regularly scheduled classes each semester or the summer session. This coverage is terminated on the first day of classes of the next regularly scheduled term. Continuous year-round coverage is available if the student maintains University registration at 9 or more hours during the first and second semesters and applies for summer coverage at the Student Health Insurance Office prior to the expiration of spring coverage. A summer insurance fee will be assessed in tuition and fees only by registration of 6 or more credit hours prior to the 8th calendar day of the variable length summer session. A conversion plan is available for students leaving the University. An insured student who graduates may purchase one additional term at the group rate by applying prior to graduation day.

It is strongly recommended that students remain enrolled in this plan even if other health insurance is present. A request to cancel this insurance plan is permitted during the first 15 calendar days of each semester, 8 days during the summer session, for those students who prove they have comparable insurance coverage (insurance I.D. card or copy of policy) and complete the required petition in the Student Insurance Office. However, experience has often shown that the premium for the ISU plan is less than out-of-pocket bills that many have to pay because of higher deductibles and co-insurance provisions in their own policy. Additionally, students sometimes lose coverage through their parent's plan because of age limitations, changes in dependent status, or changes in employment of parents. Thus, it can be more economical to remain enrolled in the ISU plan. The above information is a summary of benefits and enrollment procedures for students and dependents. Persons desiring specific information about the ISU Student Health Insurance Plan should call or write the ISU Student Health Insurance Office.

Living Accommodations

Handicapped students are requested to contact the Coordinator of Services for the Handicapped, Hovey Hall 207.

On-Campus Apartment Living

Two apartment complexes provide students with an environment conducive to both personal and academic growth. Single graduates and qualifying upperclass students, as well as all student married couples and families, are eligible to occupy these unfurnished apartments. The complexes, Cardinal Court and 300 Shelbourne Drive, offer a quiet environment, community atmosphere, excellent maintenance service, spacious grounds, and good proximity to academic buildings.

For additional information and an application, contact the Office of Residential Life.

Residence Hall

The University owns and operates 15 residence halls providing living accommodations for approximately 8,000 students. These facilities include spaces accessible to handicapped students. Among the advantages offered by residence hall living are the convenience of location with meal service, and the opportunity to select from various lifestyle areas, including quiet lifestyle, graduate student floors, non-smoking floors, Applied Computer Science lifestyle and Business lifestyle. Additional information regarding residence hall living may be obtained by contacting the Office of Residential Life.

Off-Campus

Apartments and rooms are available in the Normal-Bloomington community. The University has no participation in housing contracts issued to students renting space in private housing and does not participate in the inspection of any off-campus housing.

Financial Aid

General Information

Each year many ISU graduate students receive assistance from three major types of financial aid programs: grants and scholarships, loans, and employment. All financial aid is coordinated through the Financial Aid Office located in Hovey Hall, 208C. The Financial Aid staff is available Monday through Friday, 9 a.m. - 4 p.m. to assist students in understanding the financial aid process.

General Eligibility Criteria

To qualify for federal or state financial aid programs, an applicant must:

1. Be a citizen of the U.S. or a permanent resident.
2. Demonstrate financial need as determined by an appropriate need analysis form accepted by the Department of Education.
3. Be enrolled at least as a half-time student (6 hours) in a program leading to a degree or certificate (classified). Students not pursuing a degree (i.e., graduate student-at-large) are not eligible for federal or state financial aid.

4. Not be in default on a Perkins Loan (formerly National Direct Student Loan) or Guaranteed Student Loan.
5. Not owe a repayment to a federal grant program.
6. Make satisfactory progress toward a degree as defined by ISU.
7. Be registered with Selective Service, if the student is a male who is at least 18 years old, born after 1959, and not currently a member of the active Armed Forces.
8. Be enrolled in only one institution at a time.

Application Procedures

To be eligible for financial aid at ISU, students are required to submit the following documents to the Financial Aid Office:

1. The ISU Financial Aid Application. Students should indicate on this form the preference for Perkins Loan (formerly NDSL), Guaranteed Student Loan (GSL), and/or College Work-Study (CWS). The student must also include appropriate non-returnable, signed copies of 1987 tax returns with this application.
2. A Student Aid Report (SAR) from the Federal Processor indicating expected family contribution as calculated on student's reported income data. To obtain a SAR, complete only one of the nationally approved need analysis applications. The choices are 1) the Application for Federal Student Aid (AFSA), 2) the ACT Family Financial Statement (FFS), 3) the Application for Federal and State Student Aid (AFSSA), or 4) the CSS Financial Aid Form (FAF). List ISU as the college of first choice and check the item requesting release of data to ISU, to the Pell Grant, and to the State Grant Program.
3. Financial Aid Transcripts from all other schools attended, even if the student did not receive Financial Aid from the previous school(s). A financial aid transcript (which can be obtained from the Financial Aid Office) is not the same as the academic transcripts required for admission.

The Financial Aid Office preferential filing date is March 1.

Applications received after March 1 will be considered late and will be processed according to the availability of funds and staff time.

GRANTS AND SCHOLARSHIPS

Grants and scholarships are available on a limited basis through federal, state, ISU, and private sources for graduate students. Federal gift aid programs include GI Bill benefits, fellowships, and assistantships. State scholarships include Special Education Scholarships, Illinois Military Scholarships, General Assembly Scholarships, and National Guard/Naval Militia Scholarships. ISU grants and scholarships include Regents' Tuition Waivers which are awarded to students who, although not selected for other fellowships, show promise for success. These awards are made by the academic departments and the International Studies Office. In addition, the Dean of Graduate Studies awards a limited number of tuition waiver fellowships to **minority students** who are particularly deserving of assistance in meeting their educational objectives. Tuition waivers are also available as part of a graduate assistantship contract. Private agencies including clubs, foundations, organizations, corporations, and churches also provide limited scholarship funds for graduate students. A private scholarship manual, which lists eligibility requirements and donor addresses, is available for review in the Financial Aid Office.

Mini-Grant Program: Small grants for graduate students' research and travel to present the results of research are available through the Graduate School under the sponsorship of the Graduate Student Association.

The Ada Belle Clark Welsh Scholarship: The Ada Belle Clark Welsh Scholarship Fund provides a one-time award of approximately \$2500 to *women with undergraduate degrees who show promise and are deserving of a graduate educational opportunity in the field of liberal arts and humanities, including study for teacher preparation or improvement.*

Specific criteria shall include, in order of importance: a record of academic excellence, evidence of career orientation, and need.

Application forms may be obtained from the Graduate School office. Applications must be received in the Graduate School office by March 15.

Alpha Lambda Delta Annual Scholarship: Seniors who (as freshmen) were inducted into membership in any Alpha Lambda Delta Chapter, and who have maintained the required grade point (3.5 on a 4.0 scale) throughout their college careers, are eligible to apply for any of 14 graduate scholarships in the fall of their senior year. Each fellowship is for \$3,000 and can be used in any field of study at any accredited graduate school.

Applicants will be judged on scholastic record, recommendations, the soundness of their stated project and purpose, and need. Application blanks and information may be obtained from Dr. Julie Gowen, 141 Stevenson Hall. The application form, which is available about October 1 of each year, must be completed by the applicant and received at the National Headquarters of Alpha Lambda Delta, P.O. Box 88, Muncie, IN, 47305 by January of the following year.

Ora Bretall Scholarship: Ora Bretall Scholarships will be awarded on a one-time basis to persons enrolled in graduate programs at Illinois State University whose proposals for master's thesis or doctoral dissertation deal significantly with issues in educational theory or philosophy of religion, and who give promise of continued contribution to the development of educational theory and practice. Educational theory refers to study in pedagogy, educational foundations, curriculum and educational administration. Eligible students from all colleges in the University may compete for an Ora Bretall Scholarship.

The size of the scholarship shall be determined by the Scholarship Committee based on data submitted by the applicant. As a general guideline, an award of \$1,000 for master's thesis and \$2,000 for doctoral dissertation will be made, although variation to this standard may be made by the Committee in relation to special aspects of the proposed thesis/dissertation project and funds available from the endowment.

The criteria for evaluation will emphasize demonstrated scholarship and potential as demonstrated by a) the applicant's academic record, b) the proposed thesis/dissertation project, and c) letters of recommendation. Application forms may be obtained from the Graduate School Office. Awards will be made twice a year. Applications must be received in the Graduate School office by September 15 or March 15.

Lela Winegarner Scholarship for International Students: Lela Winegarner Scholarships are awarded to promising international students who are pursuing careers of service to their country. The selection committee evaluates applicants' demonstrated scholarship and potential for using their education in a service capacity in their native country. All international students admitted to an Illinois State

University Graduate School program whose career objectives meet the above criteria are eligible. The amount of the awards will vary in accordance with available funds. Applications are available in the Graduate School office and must be submitted by September 15.

Illinois State University Foundation Fellowship: The Foundation Fellowship for Graduate Students is an award of one-thousand dollars (\$1,000) to prospective students who have demonstrated a potential for academic excellence. Applicants must have attained a cumulative grade point average of 3.5 on a 4.0 scale on previous undergraduate and graduate course work.

Applications will be accepted from those applying for, or already admitted to, a degree program. However, at the time of the award, successful applicants must be admitted to, but not have begun work on a degree program.

Applicants for degree programs interested in a Foundation Fellowship should obtain an application form from the Graduate School Office, in 310 Hovey Hall, and return the completed form with the required supportive materials to the same office. Applications must be received by March 15.

LOANS

Perkins Loan (formerly National Direct Student Loan): Perkins loans are available from funds provided jointly by the federal government and the University. Student cumulative loan limits cannot exceed \$9000 for the undergraduate program and \$18,000 for the student's total post secondary program, including undergraduate and graduate. At ISU, funding seldom supports awards greater than \$1000 per year. These loans are based on demonstrated financial need as determined by the Student Aid Report (SAR) and the ISU Financial Aid Application. No repayments are due and no interest accrues until six months (continuing borrowers) or nine months (first time borrowers) after the student leaves school or ceases to be at least a half-time student. The interest rate is 5 percent per year and the borrower has up to ten years to repay the loan. The minimum repayment is \$30 per month.

Guaranteed Student Loan Program (GSL): Contact participating banks, credit unions, and savings and loan associations for approval to borrow from them. ISU students must complete the ISU Financial Aid application process described previously. The GSL program is a need-based program. Therefore, income information is required from each applicant's family. To qualify for a GSL, a student must enroll in a minimum of six (6) hours per term, even during the summer session.

Loan Limits: A graduate student may borrow \$7,500 per class level for up to five years. The total cumulative amount borrowed cannot exceed \$54,750 for undergraduate and graduate combined.

Class levels are categorized as follows: 0-18 hours, first year graduate; 19-36 hours, second year graduate; 37-54 hours, third year graduate; 55-72 hours, fourth year graduate; 73-96 hours, fifth year graduates.

The Illinois Guaranteed Loan Program may charge up to a 3 percent insurance premium per annum for all loans. Additionally, federal regulations require a 5 percent origination fee be deducted from the approved loan amount. These charges reduce the amount of money available directly to the student.

Repayment: Repayment provisions for a GSL are outlined on the student promissory note. The note should be read carefully since provisions differ depending on the date the

note was executed. First time borrowers pay an 8 percent interest rate. Repayment begins 6 months after graduation or after a student ceases to enroll in a minimum of 6 hours per term.

Supplemental Loans for Students: The Education Amendments of 1980 authorized the federal government to insure loans made to both parents of undergraduate students under the PLUS loan program and to independent undergraduate and graduate students under the supplemental loan program (SLS). Repayment begins 60 days from disbursement of the loan. The interest rate is equal to the 91 day T-Bill rate, plus 3.75 percentage points.

Students can borrow no more than the student budget minus other financial assistance and family resources. Loan limits are as follows: \$4,000 per academic year; \$20,000 in addition to GSL limits, for graduate students. Applications can be obtained from participating lenders.

Employment

Graduate Assistantships: Graduate Assistantships are available in most of the University departments. In addition, assistantships are available to men and women who serve as counselors in the University residence halls. In each instance, the graduate assistant is assigned responsibilities that contribute directly to the individual's professional career. Students must be admitted to a specific graduate degree program to be awarded an assistantship. The academic requirements for graduate student assistantship require a B average for the last 60 semester hours of undergraduate work for appointment for master's degree students. Graduate assistants who provide classroom instruction must have their oral English language proficiency certified by the Dean of the Graduate School prior to beginning their duties. Graduate assistants on full assistantships requiring 20 hours of work each week, may not be employed in other capacities by ISU. Those graduate students with less than a full assistantship may work additional hours on campus but only up to a total of 20 hours per week. Applications for graduate assistantships should be made to the student's departmental office. Applications are also received in the Graduate School for non-departmental appointments. This file is made available to interested employing units.

The registration fees for a graduate assistant are the same as fees assessed by any other graduate student except that the insurance fee must be assessed for every graduate assistant regardless of the number of hours being taken. Most graduate assistants also receive a tuition waiver.

College Work-Study Program (CWS): This federally-sponsored program enables those students with demonstrated financial need to earn a portion of their expenses while they are enrolled at Illinois State University. The federal government pays 75 percent of the Work-Study student's earnings while the employer pays the balance. A student employed ten to twenty hours per week can usually expect to earn between \$1,000-\$2,100 during an academic year. The hourly rates for on-campus positions include \$3.35, \$3.55 and \$4.00 per hour, depending on the responsibility of the position. These rates are subject to change according to state and federal legislation. Work-Study students may find jobs on campus (food service, Library, Union, departmental offices, etc.) or for non-profit off-campus agencies (hospitals, youth centers, counties, city, elementary or secondary schools, etc.). Work-Study positions are posted on the Job Board located outside the Student Employment Office in 207 Hovey Hall. Refer to the application procedures regarding eligibility for College

Work-Study. Students contact the employer for an interview. If hired, state and federal withholding tax forms must be completed in the Payroll Office, Hovey Hall 101. Work-Study employers must also complete and return a Student Employment Form and an Immigration Reform and Control Act, I-9 Form for each student hired. Students are not permitted to earn more than their Work-Study eligibility as determined by federal regulations.

Regular Employment: Those graduate students who desire to work on or off campus and who have not had their need fully met by a Perkins Loan (formerly NDSL) or College Work-Study funds are eligible for regular part-time employment positions on or off campus. The Financial Aid Office has information about regular employment opportunities posted on the Job Board.

Professional Practice: Professional Practice (Cooperative Education and Internship) is a university-wide program that provides students with an opportunity to earn academic credit while gaining professionally supervised work experience in business, industry, government and other agencies and organizations. Cooperative Education, is a paid educationally related work experience in which students either alternate campus study and work experiences or undertake them simultaneously. Internship, the other form of Professional Practice, is usually an unpaid experience. Students interested in Cooperative Education or Internship should contact their department coordinator or the University Professional Practice Office.

Immigration Reform and Control Act of 1986: It is the policy of Illinois State University to be in compliance with the Immigration Reform and Control Act of 1986. Therefore, it will be necessary that all employees furnish documentation prior to employment to establish both their employment authorization and identity. All employment is contingent upon a review and verification of such documents.

Veterans Services

The Office of Veteran Affairs, located in 211B Hovey Hall, advises Veterans and dependents on matters relating to educational benefits and also handles the correction of payment problems.

Certain dependents of deceased war veterans are entitled to educational benefits from the Veterans Administration. If a student seeks such benefits, the Veterans Affairs Office should be contacted.

Illinois Veterans Grant (IVG): A veteran who was a resident of Illinois both before and after one year or more of active duty and received other than dishonorable discharge may qualify for the Illinois Military Grant which pays tuition and activity fee.

All veterans applying for the IVG must submit a photocopy of their DD214 and the IVG application form to the Illinois Department of Veterans Affairs. A grant ID number will be prepared for those who are eligible, and should be presented to the Financial Aid Office.

Veterans, G.I. Bill: Benefits are available until ten years after the date of discharge for any other than dishonorably-discharged veteran of the Army, Navy, Marine Corps, Air Force or Coast Guard who (1) served continuously on active duty for at least 181 days ending after January 31, 1955, but before January 1, 1977, or (2) served less than 181 days, if active duty was ended by a service-connected disability, or (3) serve presently in the Armed Forces, if they have had at least 181 days active duty. Benefits will be paid a maximum of forty-five months. Veterans who first

entered active duty after December 31, 1976, must have contributed to the education fund to be eligible for a maximum of thirty-six months of benefits. Contact the Office of Veterans Affairs or the Office of Admissions and Records.

Survivors' and Dependents' G.I. Bill: The children, and/or spouses, who are survivors of veterans whose deaths, or permanent total disabilities, were service-connected in the Armed Forces after the beginning of the Spanish-American War, may be eligible for benefits. Children of servicemen or service women missing in action or prisoners of war for more than 90 days also are eligible. Assistance is available to eligible children during the period which begins on the date of the eighteenth birthday or successful completion of high school, whichever comes first, and ends on reaching the twenty-sixth birthday.

Financial Aid Repayments

By signing the applicant's "Statement of Educational Purpose" on the ISU application, students agree to use financial aid funds only for expenses related to attendance at ISU. Therefore, if the student withdraws from or stops attending ISU after receiving a Perkins Loan (formerly NDSL), the student may be required to repay all or a portion of the awards. The first step in determining if a student may owe a repayment is to subtract from this award the total institutional charges not covered by another grant, scholarship or waiver. If the difference is positive and exceeds \$100, **the student will be required to repay a portion of the amount over \$100** For the fall and spring semesters, the repayment is based on the following schedule.

1. 50 percent, if the student withdraws or stops attending within the first 15 calendar days of the session.
2. 25 percent, if the student withdraws or stops attending between the 16th and 30th calendar day of the session.
3. No repayment will be required if the student withdraws after the 30th calendar day of the session.

For the **summer session**, the above guidelines will be applied in a corresponding manner to determine the amount of repayment to Financial Aid funds due to withdrawal.

The amount to be repaid by the above calculation will be further reduced by any refund due from institutional charges. Unless otherwise notified, repayment of a Perkins Loan must be made in accordance with conditions set forth in the promissory note and the repayment schedule established at the exit interview prior to withdrawal. Failure to make the required repayment will result in a hold on academic and financial aid transcripts, restrictions of future registrations, ineligibility for future financial aid and any other collection activities deemed appropriate.

Regardless of the amount of repayment, any student withdrawing from a class at any point in the term may violate the Satisfactory Progress Policy and become ineligible to receive future aid. For determining student status, refer to the Satisfactory Progress Policy.

If a refund is due back to the student for tuition or housing payments made prior to the date of withdrawal, the University must first determine if any of the refund should be paid back to the federal or state financial aid programs. Using the federal refund formula, the Financial Aid Office will determine the percentage of any refund which must be restored to federal aid programs. The percentage of refund will be determined by subtracting the College Work Study from Title IV aid and then dividing that difference by all aid awarded minus College Work Study.

The percentage of the refund to be repaid will be distribut-

ed among the following awards in this sequence: Perkins Loan (formerly NDSL), institutional awards, private scholarships, GSL, PLUS, and ALAS.

Financial Aid Check Distribution

Financial aid checks are distributed throughout the academic year at the Student Accounts Office, Media Services Building, Room 102. The schedule of monthly check distribution dates is printed in the Financial Aid Information Guide. Please note, only private scholarships and loan checks may be available the first day of classes. Students should be financially prepared to buy books and supplies. Before any Perkins Loan (formerly NDSL) checks will be written, a student must have received and returned a signed award letter to the Financial Aid Office. Perkins Loan recipients must also complete and submit a personal data form indicating references. GSL checks will be made available as notifications and money are received by the Financial Aid Office. **To claim the check in person**, the student must present an ISU ID card with a validation sticker. Prior to the tenth day of classes, an ID card or Driver's License and class schedule will be required. **A student who cannot pick up aid checks** in the Media Services Building because of student teaching, studying abroad, or illness, should write to the Student Accounts Office, indicating name, social security number, the type of aid check, and the specific address to which the check is to be mailed.

Confidentiality and the Release of Information

The Financial Aid Office will release information about the financial status of a student to those parties within the University concerned with the financial welfare as related to the student's attendance at ISU. Inquiries from off-campus agencies and/or landlords, will be answered by Financial Aid staff only if the student has completed, in advance, a "Consent to Release Information" form available in the Financial Aid Office. To protect the confidentiality of the student's records, the Financial Aid Office will request proper identification in person before releasing any information concerning one's financial aid status.

Satisfactory Progress Required for Continued Financial Assistance

The following University policy applies to both graduate and undergraduate students:

1. Illinois State University requires satisfactory progress toward a degree as an eligibility requirement for financial assistance.
2. The amount of any financial aid award is based on a number of factors, including the number of hours in which the student is enrolled at the time funds are disbursed.
3. For purposes of this policy, academic term is defined to include the summer, spring and fall terms.
4. A student must have earned (A) 75 percent of the total hours attempted at his or her current degree level (i.e. undergraduate and graduate credits cannot be commingled) to be considered as eligible under this policy. New students (B) will be given an adjustment period. If a new student does not earn 75 percent of the hours attempted (C), the student will be considered on probation but aid will not be withdrawn.
5. A student's eligibility is terminated at the point when total hours (D) attempted equal 180 for the bachelor's

degree, 50 for master's degree, or 75 for doctoral degree.

6. This policy is applicable to all students receiving University administered financial aid funds during any academic term. Categorical exceptions approved by the Provost will be handled by the appeal process.
7. Prior to the beginning of each academic term, the Director of Financial Aid will review the eligibility of applicants. Those in violation of this policy will be notified in writing of their eligibility status.
8. Reinstatement is available automatically by earning additional hours at ISU and meeting the 75 percent standard, or by appeal. The appeal procedure must be initiated by the student by securing a Satisfactory Progress Appeal Petition from the Financial Aid Office and returning the completed form with documentation to that office PRIOR to the next academic term during which the student will be enrolled.

NOTE: Students should consult the University catalogs for academic policies and graduation requirements.

Definitions: The following definitions apply to the above policy and are referenced to the appropriate section.

- A. For undergraduates, earned hours are the sum of hours for which the student has earned a grade of A-D, CR, or CT, (including repeats). For graduates, earned hours are the sum of hours for which the student has earned a grade of A-C, CR, or CT. Withdrawals, incompletes, audits, and failures are not earned hours. Note: A limited number of DE (deferred evaluation) grades are considered as earned hours for this policy.
- B. A new student is defined as a Freshman with 0-20 hours attempted at ISU.
- C. The phrase "hours attempted" is defined as the sum of the hours for all ISU courses for which registration charges were incurred.
- D. Transfer hours will be included in hours attempted used in number 5 of the above policy.

Note: For further information, students should refer to the Illinois State University Financial Aid Information Guide, Financial Aid Brochure, or contact the Financial Aid Office. Changes in federal, state and institutional policy could affect information printed in this publication.

Student Life and Services

University Policy Manual: The University Policy Manual contains University policies and procedures including those approved by the Academic Senate. Also included are operational policies, the Code of Ethics, resolutions, statements and special committees. Copies are available in departmental offices.

Student Handbook: A Student Handbook has been developed which is made available to all new and continuing students at Illinois State University. The students, faculty, and staff of Illinois State University constitute an academic community. The University affirms the Guidelines for Individual Action and the General Regulations as enunciated in the Student Handbook. Each member of the community should—when appropriate opportunities occur—reaffirm and communicate these statements, pointing out to those whose behavior is in violation that membership of this community implies adherence.

Office of Disability Concerns: The Office of Disability Concerns' purpose is to assist persons with disabilities to become an integral part of the University community.

Persons with disabilities refers to those individuals who have a spinal cord injury, cerebral palsy, arthritis, alcoholism, chemical dependency, multiple sclerosis, spina bifida, cardio-vascular problems, asthma, epilepsy, sickle cell anemia, learning disabilities, hearing impairment, visual impairment, and many others. All information regarding a person and his/her disability is confidential.

Examples of services provided include such things as: readers, sign language interpreters, wheelchair pushers, peer tutors, braillists, and a list of persons interested in being Personal Care Assistants (PCA). Students with disabilities are encouraged to contact the Coordinator of Disability Concerns, Hovey Hall 207, 309/438-5853 (Telephone for the Deaf TTY-438-8602) as early as possible.

Student Judicial Office: The Student Judicial Office provides administrative support for the Student Code Enforcement and Review Board (SCERB). SCERB has the responsibility for the review and enforcement of student regulations and the review of student grievances. For further information concerning student rights and responsibilities, and SCERB, consult the *Student Handbook* available on campus through the Office of Student Life and Programs in the Bone Student Center or in the Student Judicial Office in Julian Hall.

Counseling Center: The purpose of the Counseling Center is to help students resolve those problems which might otherwise limit their capacity to benefit from the educational experience provided at ISU and to enhance their own understanding of themselves.

The Center provides the full range of counseling services, including individual, marital, and group counseling; crisis intervention; career life planning; and services to students with special needs. The Center is also involved in the training of graduate students and is a training site for doctoral interns that is approved by the American Psychological Association.

A person may initiate contact with the Center by either calling or coming directly to the Center (located in 56 DeGarmo) during an afternoon "walk-in" counseling service from 1:00-3:45 p.m., Monday-Friday. Contacts are confidential and are not part of the student's school record. All services are free of charge.

Child Care Center: Open only to students, ISU Child Care Center offers high quality, affordable child care services to children 2-10 years of age. It is open during the fall, spring and summer semesters. Hours are 7:30 a.m. to 5:00 p.m. during the fall and spring; 7:15 a.m. to 4:30 p.m. during the summer. The center is licensed for 40 children at a time with care provided in 124 Turner and 105 Fairchild. Call 438-5026 for an application or visit 124 Turner Hall and ask for the Director.

Bone Student Center/Braden Auditorium: Bone Student Center provides facilities, programs and services, primarily for students, which complement the educational goals of the University. Included within the Center are: restaurants, the bookstore and other merchandise centers, photo copying, bus, train and event ticket sales, banking and check cashing, lounge areas and multi-purpose rooms for student activities and other programs. Adjacent to, and operated by the Center, are a Bowling and Billiard Center and a 500-space parking lot.

Braden Auditorium seats 3,457 on three levels. It is an academic and public service facility and the entertainment center for the University and the community.

Placement Service: The University maintains an active program of placement for graduates and alumni and endeavors to keep constantly informed regarding the require-

ments of schools, businesses, and governmental agencies. The Placement Service makes a constant effort to follow up graduates in order to assist them in locating positions of responsibility commensurate with their experience and success in the field. All graduates who desire to secure professional and financial advancements should each year bring their credentials up to date in the Placement Service.

Office of Research and Sponsored Programs: The University's Office of Research and Sponsored Programs is an information and coordinating center for faculty and students who wish to secure financial support from Federal, State, and private agencies to conduct research projects, training programs, and public service activities. Projects and programs funded by governmental agencies and foundations constitute an important part of the University's involvement in research and development. This office serves as a catalyst to facilitate faculty and student activities in research and community service programs. It provides help in locating appropriate funding sources for new academic endeavors, assists in developing and processing research proposals, acts as liaison between the University and funding agencies, and serves as the Institution's authorized agent to outside funding agencies.

Alumni and Parent Services: The Alumni and Parent Services Office at Illinois State University offers programs and services to ISU alumni, parents of ISU students and to current students themselves. Activities for alumni include Homecoming, special Alumni Appreciation Nights at athletic events, class and departmental reunions, special conferences and seminars, and other educational/entertaining programs.

Illinois State University keeps in contact with alumni throughout Illinois and the United States through area meetings which feature a variety of informative and entertainment programs. Quarterly mailings of *Illinois State Today* allow alumni to receive communication from their Alma Mater. Additional mailings are sent announcing special events and activities.

The Alumni Services Office, located in Rambo House, is the campus headquarters for the Alumni Association. The Alumni Association Board of Directors serves as the liaison between all alumni and the University.

Parents of ISU students have the opportunity for involvement through the Parents Association under the auspices of the Alumni and Parent Services Office. The Parents Association Advisory Board, composed of parents representing various geographic locations, serves as the liaison between parents and the University. The Board helps with planning Parents Weekend, assists in ISU's recruitment effort, placement, fund raising, and other public relations

programs, and conveys the suggestions and concerns of parents to ISU administrators.

Current students have the opportunity to become involved in the Student Alumni Council. The Student Alumni Council is open to any student and is designed to promote better relations between alumni, parents and current students. The official ISU graduation announcements are available for undergraduate and graduate students through SAC, located in Rambo House.

The ISU Foundation: The Illinois State University Foundation is a not-for-profit corporation chartered by the State of Illinois for the sole purpose of serving Illinois State University. It does so by soliciting, receiving, investing, and administering gifts, grants and other contributions to support and enhance educational programs and opportunities at Illinois State University.

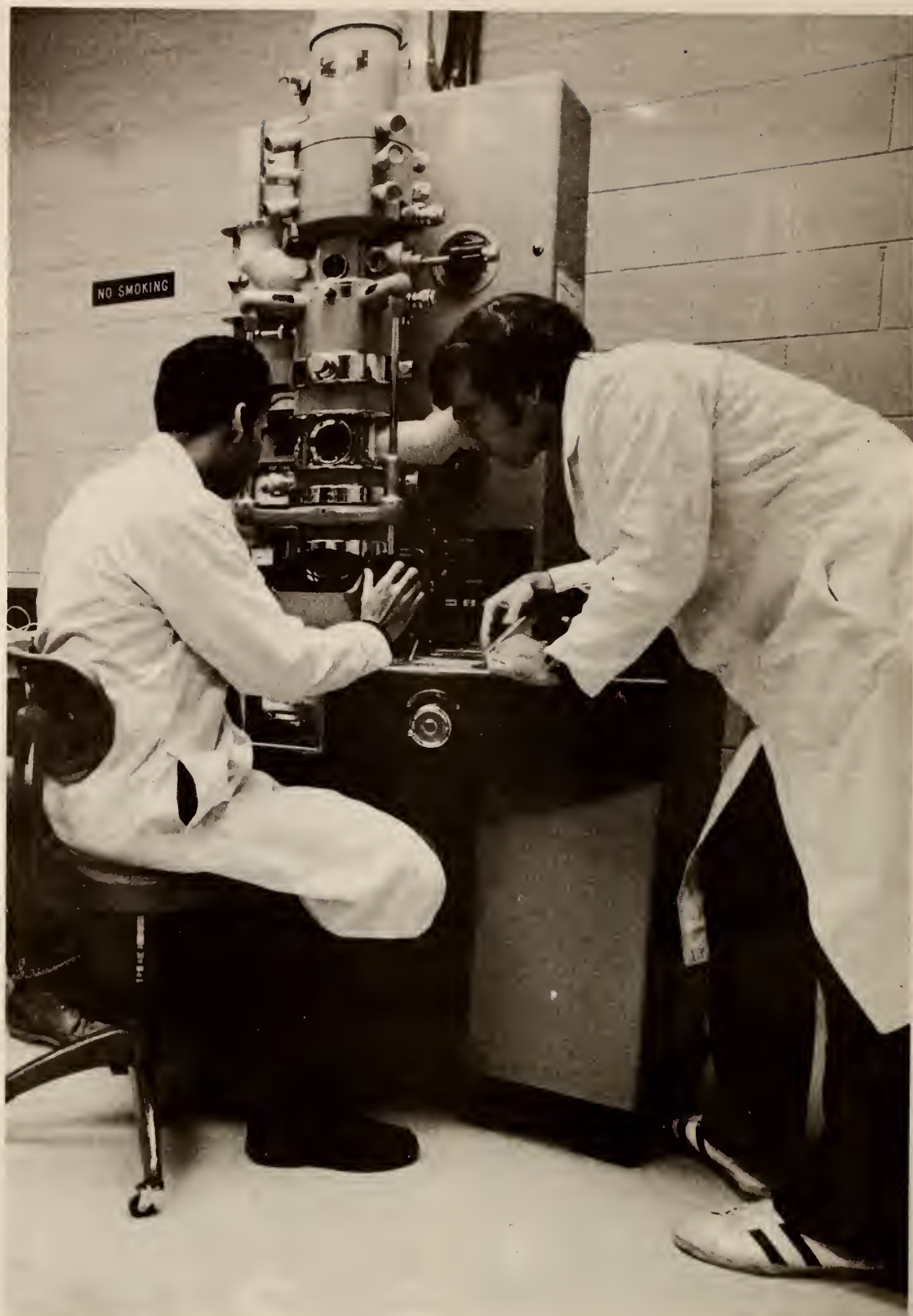
The Foundation encourages donors to make unrestricted gifts. Unrestricted gifts help the University to achieve a higher level of quality because these resources can be distributed where the need is greatest. However, gifts and grants may be designated in support of colleges, departments, or any educational program. Bequests, charitable remainder trusts, and other planned and deferred gifts are also processed through the Foundation.

All business matters and policies for the ISU Foundation are administered by an elected Board of Directors which is comprised of alumni and friends of the University.

All gifts made to the ISU Foundation are tax deductible as provided by law. Further information about the Foundation may be obtained through the Office of Development, Rambo House, at ISU.

ISU Development Office: The Development Office is located in Rambo House and is responsible for developing a long-range program to encourage voluntary financial support of the University from alumni, parents, students, friends, faculty, staff, corporations and foundations. Contributions are used to provide scholarships, student loans, research grants, purchase specialized equipment, aid departmental programs, establish an endowment fund, and for a variety of other educational projects and programs. The financial support generated through the Office of Development provides a "margin of excellence" which enables Illinois State University to be a creative and progressive force in higher education.

The Development Office, in actively seeking voluntary support for the University, is carrying on the tradition established by the University's founders, whose solicitation of gifts of money and land made the establishment of the University possible.



ADMISSION

Admission Requirements

Admission requirements for the Master's, Master of Fine Arts, Certificate of Advanced Study, Doctor of Arts, Doctor of Philosophy and Doctor of Education are given elsewhere in this catalog under the heading Fields of Study and Degrees Granted. Also, see the department sections.

Eligibility: A student who has completed work for a bachelor's degree or its equivalent, as determined by the Graduate Dean, or who will do so within one academic year at a college or university that is accredited by the appropriate regional accrediting association, may apply for admission to the Graduate School. While admission may be granted to a senior, only those who have received a bachelor's degree will be permitted to register in a degree program. However, seniors may be permitted to begin graduate work if they meet the conditions of the Senior in Good Standing Policy. See section on *Admission to Master's Programs*.

Applications and Credentials: All students who wish to take work for graduate credit must submit a formal application for admission to the Graduate School. This includes students who have graduated from, or are attending this University. It also applies to those who wish to take university courses off campus for graduate degree credit. A prospective student at the master's level should file an application and arrange for Graduate Record Examination or Graduate Management Admission Test scores and two (2) official transcripts from each college or university attended to be sent at least three weeks before the date of registration. Departments may have additional requirements.

Applicants for admission to Master of Fine Arts and Doctoral programs are encouraged to apply as early as possible. Two months should be considered as the minimum period between filing of applications and registration. Application forms and instructions are available from the Office of Admissions and Records, Hovey Hall.

Medical Requirements: All students admitted to Illinois State University are required to file a completed ISU Medical History Form with the Student Health Service at or prior to registration for nine (9) or more hours or upon entitlement to Health Service by other means. Included with the Medical History form must be:

1. Results of T.B. skin test or chest x-ray accomplished within the previous year which have been verified by a physician or public health official.
2. A completed immunization section showing current immunization dates for tetanus and diphtheria, poliomyelitis, mumps, rubella and measles **OR** in the case of diphtheria or measles, physician documentation of having had these diseases **OR** in the case of rubella, verified serologic test results. All students are required to have their immunizations current as defined by ISU Student Health Service medical authorities. Students who do not have an acceptable immunization record on file may not be permitted to register for subsequent terms at the University. Students who graduated from out-of-state high schools (U.S. and foreign) must have

immunization/disease dates verified in writing by a physician, public or school health official; failure to do so will result in a hold on future registration.

Readmission of Former Students: Graduate students who wish to return to the University after a lapse of one semester or more should apply for readmission through the Office of Admissions and Records at least ten working days prior to the beginning of registration for the session which they wish to attend. A student who has attended another college or university during absence from the campus should request that institution to send a transcript of the student's work to the Office of Admissions and Records at Illinois State University.

International Student Admission: International students may apply for either the fall or spring semesters or for the summer term. The University operates on a semester basis (16 weeks), a fall semester which begins in late August and a spring semester which begins in early January. In addition, the University offers a twelve-week summer term which begins in the middle of May. However, courses of shorter duration are available.

An international student holding the equivalent of a U.S. baccalaureate degree, as determined by the Dean of the Graduate School, from a recognized foreign institution of college or university level, may apply for admission to the Graduate School. The admission of international students is governed by separate requirements, as outlined below. An international student whose native language is not English is required to submit scores on the Test of English as a Foreign Language (TOEFL). No decision will be made on a student application until official test results have been received from Educational Testing Service (ETS).

The minimum TOEFL score required for international graduate admission is 550. Departments may require higher scores at their discretion. Any department may, because of the nature of study in the department, screen students with scores lower than 550. Those recommended for admission with scores lower than the minimum must be approved by the Graduate Dean. In addition to the Test of English as a Foreign Language required for admission, all international graduate students are required, after arrival at the University, to sit for an Illinois State University administered English placement exam. Those who score below the acceptable level will be required to enroll in and successfully complete a special English course designed for international students. Students anticipating a teaching assistantship should submit scores on the Test of Spoken English.

Students must also submit Graduate Record Examination (GRE) aptitude test scores and, if required by the department, the appropriate advanced test. Graduate students applying to the College of Business must submit Graduate Management Admission Test (GMAT) scores instead of GRE scores.

Each applicant must provide a financial statement (enclosed with the application form) specifying sources of funds to finance the student at the University for at least one full academic year, and certifying that these funds are available by submitting a bank statement.

International student admission applications, original academic credentials, test scores, medical history form and financial statements should be received by the Office of Admission and Records two months prior to the enrollment date, and all records must be accompanied by an English translation where needed. Immigration rules require international students to be enrolled full-time in a degree program. Therefore, an international student may not be admitted as a student-at-large.

The Bulletin of Information for TOEFL and TSE and registration forms can be obtained in a number of cities outside the United States, usually at American embassies and consulates, offices of the United States Information Service (USIS), United States educational commissions and foundations, bi-national centers, and many private organizations such as the Institute of International Education (IIE), the African-American Institute (AAI), American-Mideast Educational and Training Services (AMIDEAST), and the American-Korean Foundation. If a bulletin can not be obtained locally, write to TOEFL, CN 6154, Princeton, New Jersey, 08541-6154, U.S.A.

Information regarding test dates and application forms for the GRE (Graduate Record Examination) or the GMAT (Graduate Management Admissions Test) can be obtained from the following U.S.A. centers: (1) Measurement and Evaluation Office, 115 Julian Hall, Illinois State University, Normal, IL 61761; (2) Graduate Record Examination, Educational Testing Service, CN 4681, Princeton, New Jersey 08540-6000; (3) Graduate Management Admission Test, Educational Testing Service, CN 6103, Princeton, NJ 08541-6103. Scores must be sent directly by ETS to the Office of Admissions and Records, Illinois State University, Normal, Illinois 61761.

For further assistance with admissions, transfer credits and academic standing, please address all inquiries to: Office of Admissions and Records, Foreign Admissions, Illinois State University, Normal, Illinois 61761, U.S.A. For information regarding graduate assistantships, write to the chairperson of the department to which you are seeking admission. For assistance with immigration information, housing, travel or personal problems please write to: Director of International Studies, Illinois State University, Normal, Illinois 61761, U.S.A.

Types of Admission

The Graduate School recognizes two types of students who are eligible to enroll in graduate courses. These are (a) degree students, and (b) students-at-large. For specific requirements for degree students, refer to the individual degree description in this catalog. The only students eligible to take courses for credit at the terminal degree level (D.A., Ed.D., M.F.A., Ph.D.) are those admitted to a degree program.

Degree Student: A degree student is one who has been formally admitted to a program leading to a degree. A Master's degree student's admission may be unconditional, provisional or probationary. (See Master's degree section of this catalog.)

Student-At-Large: A student-at-large is one who does not seek a degree or has not been officially admitted to a graduate degree program. A student-at-large may enroll without submitting official transcripts to the Office of Admissions and Records but is required to sign a disclaimer statement at each enrollment. The disclaimer statement reads as follows:

I certify that I have a baccalaureate degree. I understand

that my enrollment in this graduate-level course does not constitute admission to a degree program in the Graduate School at Illinois State University. I further recognize that there is no guarantee that credits earned from my enrollment will be applicable to a degree at Illinois State University.

A student-at-large may register for courses for which he/she has the prerequisites, unless such registration is restricted by the department or the Graduate School. If a student-at-large decides to pursue a degree at ISU, he or she may petition that previous courses taken may be accepted in meeting requirements for a degree. If the petition is recommended by the adviser and approved by the Dean of the Graduate School, a limited number of courses may be counted toward a degree. Normally, petitions are not approved for more than twelve (12) hours but under special circumstances up to one-half of the hours of a master's degree program may be approved to be counted toward a degree. There is no guarantee that any course work taken as a student-at-large will be counted toward a degree program.

It is recommended that students-at-large seek advice from the Graduate School or from any person responsible for advising students in specific graduate programs.

Tests Required for Admission

Master's Programs: All students seeking admission to master's degree programs must submit scores on the General Test of the Graduate Record Examination. Applicants to the Departments of History, Psychology and Sociology, Anthropology, and Social Work should also submit scores on the Advanced Test in their field of study. Students seeking admission to Business departments should substitute the Graduate Management Admission Test (GMAT) for the above examination. Arrangements for taking these examinations can be made with the Measurement and Evaluation Office, 115 Julian Hall, Illinois State University, Normal, IL 61761; or by writing to Graduate Record Examinations, Educational Testing Service, CN 6000, Princeton, NJ 08541-6000 or Graduate Management Admission Test, Educational Testing Service, CN 6103, Princeton, NJ 08541-6103.

Master of Fine Arts Program: Students seeking admission to M.F.A. programs should consult the section on the M.F.A. in this catalog.

Doctoral Programs: All students seeking admission to doctoral programs must submit scores on the General Test of the Graduate Record Examination and the appropriate advanced test if required by the department. Information concerning this examination may be obtained at testing centers or by writing to Graduate Record Examinations, Educational Testing Service, CN 6000, Princeton, NJ 08541-6000.

English Examination for International Students: Students whose native language is not English shall be tested for English proficiency by English Department personnel. Students with low proficiency in pronunciation, grammar, vocabulary and comprehension for oral skills and low proficiency in vocabulary, language use, mechanics, content and organization for written skills shall be required to successfully complete a special course provided by the English Department for graduate students. The course must be taken in the student's first semester of graduate course work at Illinois State University. When a student completes two semesters and still has not met the proficiency level, the matter will be referred to the department for disposition.

Certification Programs in Education

Administration and School Service Personnel Certificates: Individuals seeking certification through ISU graduate level programs must file the necessary documentation with the Office of Clinical Experiences and Certification Processes, College of Education, 310 DeGarmo. This should be done early in the program.

Certification for administrators and school service personnel may be earned only through completion of an approved University program. See the appropriate departmental listing for the requirements of the programs in educational administration, school counseling and school psychology. Beginning July 1, 1988, all applicants for certificates must also pass an examination in the area of specialization which has been developed and administered by the State of Illinois. For further information see the certification specialist in 310 DeGarmo.

Teacher Certificates: Graduate students who are seeking a first teaching certificate at Illinois State University in the areas of Early Childhood Education, Special Education, or Speech Pathology must meet graduate-level requirements for the individual program. The requirements for general education and for major/minor fields of study will be reviewed by the University on an individual basis and compared to the established requirements. Two of these requirements are admission to teacher education and student teaching. These requirements are explained in this section and in the College of Education section of this catalog.

Students seeking a first teaching certificate in the areas of Elementary Education, Junior High School Education, Secondary 6-12, or the other Special K-12 areas can earn that certificate only through undergraduate coursework. See the Undergraduate Catalog section, University-Wide Teacher Education Program Requirements, for an explanation of the requirements of these programs. Students who have already received a bachelor's degree in a non-teaching area can become certified only through enrolling in a second bachelor's degree program and completing the same requirements.

Students already having a teaching certificate who wish to apply for an additional teaching certificate and who have had at least three months of successful teaching experience may go to the nearest Superintendent of an Educational Service Region and request an evaluation for the particular certificate in which they are interested. Students should **not** write directly to the State Teacher Certification Board. Students who complete an additional certificate in this way will **not** have completed a program approved by the State and the National Council for Accreditation of Teacher Education (NCATE) and may have difficulty obtaining a certificate in another state.

Admission to Teacher Education: All students seeking to complete certification requirements at Illinois State University must meet University standards for teacher education programs. Students must apply for teacher education and also apply to do student teaching through the Office of Clinical Experiences and Certification Processes, 310 DeGarmo Hall, by the established deadlines. The Application for Admission to Teacher Education and the Application for Student Teaching are separate procedures.

Students must meet the requirements for Admission to Teacher Education as outlined in the Undergraduate Catalog, University Wide Requirements for Teacher Education. Contact the CECP Office, 310 DeGarmo, for further explanation of the requirements. Students must meet all of the requirements for student teaching as stated in the Student Teaching section under the College of Education in this catalog before being assigned to do student teaching.

Students wishing to appeal decisions which affect their admission to or dismissal from a teacher education program or which have a direct bearing on their being recommended for certification, should contact the Office of Clinical Experiences and Certification Processes, 310 DeGarmo Hall. Also refer to a document entitled *Student Rights and Responsibilities* which is available from the above office.





ACADEMIC POLICIES AND PROCEDURES

Each student should assume responsibility for knowing the requirements for graduate programs and for complying with current policies.

Semester Plan

The University operates on the semester plan. The value of a course is, therefore, in terms of semester hours. A semester hour is assigned for a fifty-minute period of lecture or discussion for a semester of 18 weeks. For laboratory, two 50-minute periods are necessary for a semester hour.

Academic Load

Nine to twelve hours is the usual load and fifteen hours the maximum load for a graduate student during the fall and spring semesters. In the twelve-week summer session the maximum load is twelve semester hours. If a student holds an assistantship the academic class load is adjusted accordingly. Scholastically, the ideal academic work load for a graduate assistant is nine (9) hours. An assistant wishing to take fewer than nine (9) hours or more than twelve (12) hours must have a recommendation by his or her graduate adviser which is approved, in writing, by the Graduate Dean. Graduate assistants who enroll in less than twelve (12) hours will be considered part-time students for purposes of fee assessment, except that the insurance fee will be assessed every graduate assistant regardless of the number of hours enrolled.

Auditing Privileges

A student may register as an auditor in a class or classes if facilities are available. An auditor does not participate in the activity of the class, but is expected to attend regularly. An Audit (AU) designation will appear on the student's transcript when the instructor certifies that the student has attended the class on a regular basis. If the student has not attended regularly, a WX will be recorded on the transcript after the instructor has sent a written notification to the Office of Admissions and Records that the student has not attended regularly. To register as an auditor, a student must register for the course. Then the student must get the instructor's signature on an auditor's permit which can be obtained from the Registration Office. Students must register to audit a course by the tenth day of classes in the semester with any exception having the approval of the chairperson of the department in which the course is offered and the Graduate Dean. The auditor fee is shown in the section on costs. Students who are registered for 12 or more hours for credit may audit courses without additional fees. Audited courses are considered part of the student's total load.

Commencement

Degrees are conferred and diplomas awarded after the close of each semester and summer session. Commencement is held once each year at the end of the spring

semester. Participation is voluntary. Graduate students who expect to complete degree requirements prior to the commencement may participate in that commencement. Those who will finish their degree requirements after spring commencement may participate in the spring commencement during the next academic year.

Upon receipt of a master's or doctoral degree from Illinois State University the student's major classification will be changed to student-at-large unless the student applies for a second master's degree or an advanced graduate degree.

Grading System

Instructors assign a grade in each course for which the student is registered and are responsible for correcting any error in grading. The grade point equivalents are 4 for A, 3 for B, 2 for C, 1 for D, and 0 for F and WF. Courses completed at this University with grades below C will not count toward a graduate degree, but all grades of D, F and WF in graduate courses at this University will be included in computing the cumulative grade point average. If a graduate student repeats a course, all grades are used in computing the grade point average. In very unusual circumstances exemptions to the repetition of courses policy may be granted by the Graduate Dean.

Scholastic Requirements

A student must have a minimum cumulative GPA of 3.0 in graduate work at this University to be in Academic Good Standing at the graduate level. Students who fail to meet this requirement will be terminated from that degree program by the Graduate Dean or placed on academic probation by the department and provided with a period of time or a number of credit hours, within which to raise the GPA to the required standard. A student who fails to bring the cumulative GPA up to a minimum of 3.0 during the probationary period may be terminated from that degree program by the Graduate Dean upon the recommendation of the department. A student must be in Academic Good Standing to be admitted to candidacy for a degree or to graduate.

Applying for Graduation

The Graduate Catalog contains detailed information on requirements for graduation. Students must meet all requirements for their curriculum. A graduate student must apply for graduation in the Graduate Office, 310 Hovey Hall, before the deadlines specified for each session by the Graduate School. At the time application is made, the graduation fee must be paid.

Incomplete Grades

An incomplete (I) will be assigned to a student who is doing passing work but finds it impossible, because of reasons beyond his or her control, such as illness, to complete the required work by the end of the term. The student must have attended class to within three weeks of the close of the semester or a proportionate time for a summer session or short course, and the quality of the work must be such that the student can complete it through special assignments and/or examinations. The instructor will specify the date by which the required work must be completed, which will be no later than the final class day of the corresponding term of the following academic year. For graduating students, incompletes in courses listed on their Plan of Study must be removed in the Office of Admissions and Records at least three weeks prior to graduation. When the incomplete is assigned, the student, faculty member, and department chair must sign an Incomplete Grade Permit which will specify the date by which the work must be completed, the default grade (A, B, C, D or F) which will be assigned if the work is not completed by the specified date, and the nature of the required work. If the instructor fails to file the appropriate grade change by the specified date, the incomplete will lapse to the default grade specified. Exceptions to this policy may be granted by the Graduate Dean.

Deferred Credit

Deferred credit (De) is always given in research and performance courses leading to a thesis, dissertation or exhibition. Credit will be allowed when the student satisfactorily completes all requirements for the program. Deferred credit (De) is not used in computing the cumulative grade point average.

Religious Observances

The University will **reasonably** accommodate its students, faculty, and staff who are unable to fulfill their regular duties on the occasion of a religious observance. Faculty and staff should observe normal procedures for absence from their duties. Students who are unable to attend class or take examinations for religious reasons will be given information needed to make up classes and work which were missed or to take the examination on an alternate, acceptable day.

Transfer of Degree Programs

A transfer from one degree program to another requires approval of the receiving department.

Withdrawals - From Less Than All Courses

The following policy applies where a student drops a course or courses, but not all courses in which the student is registered during a particular semester. The Dean of the Graduate School strongly advises students to make a commitment to complete courses in which they are enrolled whenever possible and not to withdraw from courses after the program change period unless absolutely necessary. A student may withdraw from a course during the program change period without the withdrawal being indicated on the transcript. After the tenth day of classes, but before the end of the sixth week of classes of the semester, the student withdraws from a class by reporting

to the Registration Office. A withdrawal form will be completed, signed by the student, and the instructor will be notified of the withdrawal. The student should keep a copy of this form. After the sixth week of classes in the semester, a student must meet with the instructor of the course/s from which he or she is planning to withdraw, have a withdrawal form signed by the instructor, and file the signed withdrawal form with the Registration Office within 24 hours.

After the tenth day of classes in the semester, a student may officially withdraw from a course with a grade of WX at any time prior to the end of the sixth week of classes of the semester (and prior to a proportionate time in a short course). Between the start of the seventh week and the end of the thirteenth week of classes (and prior to a proportionate time in a short course), a student may officially withdraw from a course with a grade of WX, WP, or WF as assigned by the instructor. WX is given if the student withdraws before the quality of work can be determined; WP, if the student is passing at the time of withdrawal; and WF, if the student is failing. A grade of WF shall be computed as a failing grade in computing the student's grade point average. A student should consult the Class Registration Directory for specific withdrawal dates for a given term. Upon the written recommendation of a physician, a student may for medical reasons be granted permission to officially withdraw from a course at a later time than the dates specified.

A grade of F will be given to students who withdraw from a course unofficially by not having a withdrawal slip signed by the course instructor and placed on file in the Registration Office, who register for a course but do not complete course requirements, or who withdraw from a course after the thirteenth week of classes (or comparable date specified above). In exceptional cases, deviations may be granted by the Dean of the Graduate School.

Withdrawal from the University

If a student withdraws from the University, all grades will be assigned in the same manner and under the same provisions stated above except that the student is not required to contact his or her instructors. Instead, the instructor of each course would assign a WP, WF, WX, or letter grade as appropriate. If medical or similar substantial reasons make it impossible for the student to follow the usual procedures, a letter signed by the student explaining the situation and requesting withdrawal from the University will be sufficient. Whether delivered in person or by mail, the withdrawal is processed in the Office of Admissions and Records.

Regardless of the circumstances of withdrawal, the student shall be responsible for returning any laboratory equipment and library materials. The student shall pay any parking fines and remove the parking decal from any registered vehicle. The student shall contact the Office of Residential Life to obtain clearance from room and board obligations and to arrange for vacating the residence hall room. The student shall arrange with the Financial Aid Office to place any scholarship on leave or cancel it and arrange a payment plan for any loans.

A grade of F will be given to students who do not officially withdraw with the Office of Admissions and Records before the specified final withdrawal date, and to students who register for a course but do not complete course requirements. In exceptional cases, deviations may be granted by the Dean of the Graduate School. In the case of graduate students, the F will count toward the graduate student's grade point average.

FIELDS OF STUDY AND DEGREES GRANTED

College of Applied Science and Technology

Agriculture	M.S.*
Applied Computer Science	M.S.
Criminal Justice Sciences	M.A., M.S.
Health and Physical Education	M.A., M.S.
Home Economics	M.A., M.S.
Industrial Technology	M.S.

College of Arts and Sciences

Biological Sciences	M.S., Ph.D.
Chemistry	M.S.
Communication	M.A., M.S.
Economics	M.A., M.S., D.A.
English	M.A., M.S., D.A.
Foreign Languages	M.A.
History	M.A., M.S., D.A.
Mathematics	M.A., M.S., D.A.
Political Science	M.A., M.S.
Psychology	M.A., M.S.
School Psychology	M.A., M.S., M.S. in Ed.
Sociology	M.A., M.S.
Speech Pathology and Audiology	M.A., M.S.
Writing	M.A., M.S.

College of Business

Accounting	M.S.
Business (Finance and Law; Management and Marketing)	M.B.A.
Business Education	M.A., M.S.

College of Education

Counselor Education	M.A., M.S., M.S. in Ed.
Curriculum and Instruction	M.S. in Ed., M.A., M.S., Ed.D.
Educational Administration	M.A., M.S., M.S. in Ed., C.A.S., Ed.D., Ph.D.
Reading	M.S. in Ed.
Special Education	M.A., M.S., M.S. in Ed., Ed.D.

College of Fine Arts

Art	M.A., M.S., M.F.A., Ed.D.
Music	M.M., M.M.Ed.
Theatre	M.A., M.S., M.F.A.

*The M.S. in Agriculture is offered by the University of Illinois in cooperation with Illinois State University.

NOTE: Graduate degrees are not granted in the following departments, but graduate course work is available as supplemental study or as electives:

Department of Geography-Geology
Department of Health Sciences
Department of Philosophy
Department of Physics

Master's Degrees

Admission to Master's Programs

An applicant for a program leading to the master's degree must have a bachelor's degree from a four-year accredited college or university, or its equivalent, as determined by the Graduate Dean. In addition, other requirements may be stipulated by the individual department. These may include examinations, interviews, auditions, examples of work, and letters of recommendation. To be admitted to a degree program, a student must have at least a 2.6 grade point average (on a scale in which A equals 4) for the last 60 hours of undergraduate work, and the approval of an academic department.

In considering an applicant for any curriculum, there may be departmental requirements in addition to the general requirements.

Prior to admission, applicants are required to present Graduate Record Examination General Test scores unless an alternative entrance examination is specified by the department and approved by the Graduate Dean.

Provisional Admittance: A student whose application for a degree program is incomplete because not all required supporting material has been received in the Office of Admissions and Records may be admitted as a provisional student. The provisional student may be granted a permit to register for one semester only, pending a decision on his/her application for admission. A provisional student is not a student-at-large. If the student with provisional status is subsequently unconditionally admitted to the Graduate School, there is no guarantee that the courses taken before unconditional admission will be counted toward a degree. Acceptance of previous courses will depend upon the recommendation of the adviser and the approval of the Graduate Dean. The degree-seeking applicant who enrolls as a provisional degree student accepts the risk of termination from the program if the provisional status is not cleared in the student's first semester.

Probationary Admittance: A student who does not meet the minimum grade point requirement but whose academic record and entrance examination scores give promise of high performance may be admitted as a probationary degree student. This admission must be based upon other documentation that the department deems important. Examples include exceptional scores on standard or additional examinations, interviews, letters of recommendation, exceptional grades in previous graduate work, samples of original work and/or demonstrated performance ability. Such recommendations for admission will be forwarded to the Graduate School for approval. Such admission may be restricted to a trial period of one semester. Any special restrictions of this type will be noted on the admission form along with other requirements for continued graduate study. These may include the successful completion of specific courses or projects, the obtaining of a minimum specified grade point average, and/or other requirements. If these requirements are not met, the student may be terminated from the program at the end of

one semester upon the recommendation of the department and approval of the Graduate Dean.

Deficiencies: When an applicant has been accepted, the department adviser will indicate any courses that may be required to remove undergraduate deficiencies. The department also may specify certain graduate courses which will be required in addition to those listed in the catalog and will designate which, if any, of these courses may be used in meeting requirements for the degree.

Senior in Good Standing: A senior at this University may begin graduate work as a provisional student during the academic year in which the requirements for the bachelor's degree are completed, **if the student applies for and is admitted to the Graduate School prior to enrolling in courses for graduate credit.** During a semester, the student may not register for more graduate credit than the difference between 15 semester hours and the number of hours required to complete the bachelor's degree. Normally, provisionally admitted seniors enroll for six semester hours or less of graduate credit. It is understood that graduate credit may be received for graduate courses only if requirements for the bachelor's degree are completed during the semester or summer session in which the student begins graduate work. This opportunity is also extended to last semester seniors of other universities who find it possible to take graduate work at this University while completing requirements for the bachelor's degree on their own campuses. Interested students should write to the Dean of the Graduate School for further information.

Degree Options and Credit Requirements

Master's degrees are offered in the fields indicated above. A master's degree can be earned through one of three options. Not all programs contain all three options. Each option has a credit hour and a culminating requirement. Also, departments may have requirements in addition to the minimum below. The minimum requirements for the three options are as follows:

1. a 32-hour program that includes from four to six hours of credit in Master's Thesis 499;
2. a 32-hour program and a comprehensive examination;
3. a 39-hour program that designates a specific course, which includes synthesizing experiences involving research and exposition. The 39-hour option degree programs are as follows: Applied Computer Science, M.S.; Biological Sciences, M.S.; Business Education, M.S.; Counselor Education, M.S. or M.S. in Education; Curriculum and Instruction, M.S. in Ed.; Educational Administration, M.S. in Ed.; Health, Physical Education, M.A. or M.S.; History, M.A. or M.S.; Home Economics, M.A. or M.S.; Industrial Technology, M.S.; Mathematics, M.A. or M.S.; Reading, M.S. in Ed.; Speech-Pathology-Audiology, M.S.; Special Education, M.A., M.S., or M.S. in Ed.

The culminating requirement in each option requires mature application of skills and knowledge. The student is expected to demonstrate an approved standard of scholarship and to provide evidence of his/her ability to think logically, to draw and defend conclusions, and to complete the work in a creditable manner.

Once an option has been approved on the formal Plan of Study, it can be changed only with written approval of the student's academic adviser and the Graduate Dean.

In the 32-hour option students must present, exclusive of Master's Thesis 499, not less than 15 hours of 400-level course work. In the 39-hour option program not less than 18 hours of 400-level course work must be presented.

Candidates for a master's degree may present no more

than 9 hours total of credit from general courses 393, 397, 400, 493 and 498.

General Degree Requirements

Master of Arts: The Master of Arts degree is awarded to a student who has completed an appropriate program, as designated in this catalog, provided the following requirements are met: the student must have earned credit for a minimum of two years in a foreign language at the college level, or must demonstrate a reading knowledge of a foreign language. In some departments this must be French or German (see departmental regulations). The student also must have earned a minimum of 32 semester hours of credit in the humanities and social sciences in addition to work in a foreign language. These requirements in foreign language, humanities, and social sciences may be met by satisfactory work at either the graduate or undergraduate level.

Master of Business Administration: Requirements for this degree are listed in the section devoted to the College of Business.

Master of Science: The Master of Science degree is awarded to students who complete a minimum of 32 hours within an approved Plan of Study and who complete either a thesis, comprehensive examination, or culminating experience. Refer to the departments for specific requirements.

Master of Science in Education: The Master of Science in Education degree may be awarded to students who have met the requirements as designated in the individual departments in the College of Education. A minimum of 32 hours within an approved Plan of Study is required and the completion of either a thesis or comprehensive examination or a 39-hour program with a culminating experience. The degree may also be awarded to students who have met specific requirements and is available only in the School Psychology program.

Master of Music and Master of Music Education: Requirements for these degrees are listed in the section devoted to the Music Department.

Master of Fine Arts (Art and Theatre): Requirements for these degrees are listed in the departmental sections of this catalog and also under the heading of Master of Fine Arts.

Two Master's Degrees Simultaneously

A maximum of nine (9) hours of course work is allowable to count simultaneously towards two (2) master's degrees provided certain other stipulations are met. These stipulations are as follows: 1) that the student have the approval of the department granting the second master's degree, 2) that all requirements for both degree programs be met, and 3) that a particular thesis may not be used to meet the degree requirements for more than one degree, and 4) that not more than three (3) hours of the nine (9) hours allowed to count toward the second degree be generated by independent study, practicum, or workshop credit.

Residence Requirements

Except in the departments of Art, Foreign Languages, and Speech Pathology-Audiology, a candidate for a master's degree is not required to complete a residence requirement. For specific requirements of the above departments refer to the department program description.

Time Limits

All requirements for the master's degree must be completed within six calendar years, beginning with the date the student first registers as a degree student. When graduate study is interrupted by military service or other contingencies, the six year limit may be extended by the Graduate Dean.

Transfer and Extension Credit

Upon recommendation of the department where the student is enrolled and with the approval of the Graduate Dean, a student may present a maximum of nine semester hours of graduate credit from another college or university for use in meeting the requirements of the master's degree. Under special circumstances, the Graduate Dean may allow a student to present a larger number of credits if recommended by the department. A student who plans to take work elsewhere should obtain prior approval indicating that the course or courses are appropriate to the student's curriculum at Illinois State University. Correspondence courses are not accepted toward a master's degree.

To be considered for transfer of credit, a course must be taught at the graduate level and the student must have received at least a B grade in the course. In addition, a departmental evaluation of all courses presented is necessary prior to consideration by the Graduate Dean.

Academic Advisers

Each student has an academic adviser to assist in planning the student's work. This adviser should be consulted regarding the sequence of courses, the selection of electives, and the option of thesis, comprehensive examination, or 39-hour option.

If a student follows a curriculum of specialization in a subject-matter field, the chairperson of the department concerned is the academic adviser unless another faculty member has been appointed by the chairperson.

An advisory committee is appointed for each student who writes a thesis. This committee is responsible for directing the thesis project, recommending the student for admission to candidacy for the degree, and conducting the final examination.

If the student chooses the option of a comprehensive examination, the department has the responsibility of recommending the individual for admission to candidacy and conducting the final examination.

Program Approval

At registration, each student's program should be selected with the approval of the academic adviser. If a program does not have such approval there is no assurance that the courses can be used in meeting the requirements for the degree.

Admission to Candidacy

To be admitted to candidacy for the master's degree the student must have an approved Plan of Study on file in the Graduate Office, completed all deficiencies, a minimum G.P.A. of 3.0 in graduate course work at I.S.U., and a copy of the Proposal for Research approval form on file in the Graduate Office if choosing a thesis option. A Plan of Study should be submitted early in the student's program

but no later than the published deadline date for each graduation. The Plan of Study must indicate whether the student has selected the comprehensive examination, thesis option, or the 39-hour option.

Thesis

Registration For Thesis Work: The student electing the thesis option must register for from four to six hours of 499, Master's Thesis. Any student using the services of the academic staff or the facilities of the University must be registered for the semester or term during which the services are rendered or the facilities are used. Also, to register for 499 the student must actually be working on the subject under the direction of the adviser or thesis chairperson. No grade will be given for the course but credit will be entered on the student's record at the time the approved thesis is deposited in the Graduate School Office. No credit for 499 may be given to a student who does not complete a thesis.

Continuous Registration: After the Proposal for Research approval form has been accepted in the Graduate School and a student has completed the courses on the approved Plan of Study and registered for four to six hours of 499 Master's Thesis, the student is required to maintain continuous registration. The requirement for continuous registration may be fulfilled by registering for Thesis 499.01 (audit). The requirement for continuous registration does not apply during a summer term unless the student is graduating in that term. Registration for 499.01 may be in absentia. If circumstances prohibit continuing registration, a student must request a leave of absence from the department and then from the Graduate Dean. Any student interrupting continuous registration without obtaining a leave of absence will be withdrawn from the degree program. Any student requesting reinstatement in a degree program must direct such a request in writing to the department and, if approved, to the Graduate Dean. If reinstatement is approved, the student must then complete an application for readmission.

Thesis Committee: A thesis is written under the direction of a thesis committee appointed in a manner specified by the department. The committee normally consists of three or more members of the Graduate Faculty, but shall not be fewer than two members. The chairperson of the committee shall be a Full Member of the Graduate Faculty. A student must be admitted to a degree program in the Graduate School before a thesis committee can be appointed.

Thesis Proposal: The Proposal for Research, including the title, scope, and design, must be approved by the student's thesis committee before a student is admitted to candidacy. The student is required to file an approved Proposal for Research with the department at a time and in a manner specified by the department. A copy of the Proposal for Research approval form shall be deposited in the Graduate School Office by the early part of the semester or term in which completion of the master's degree is expected, according to the deadlines published by the Graduate School. Forms are available in the Graduate Office.

There is no assumption of uniformity in thesis research. For example, a student may propose a creative project in art or music. In each instance, however, the completed project must meet approved standards of scholarship in the chosen field of study. In each instance there must be evidence of ability to think logically, to gather and organize material, to draw and defend conclusions, and to

present the results of the foregoing procedures in a creditable manner.

Thesis Acceptance: The thesis must be tentatively accepted by the thesis and dissertation examiner of the Graduate School before the distribution of the final examination copies. The examiner will check the thesis to ensure that it is consistent with the selected thesis style and the Guide for Writers of Theses and Dissertations published by the Graduate School.

After tentative acceptance by the examiner the student must file two unbound examination copies of the thesis in the departmental office at least one week (seven days) before the thesis defense. The committee chairperson has the responsibility of notifying members of the department and the Graduate School that the examination copies have been made available and the time and place of the defense. Following the defense, the student must file in the Graduate School the original and a copy of the approved thesis, unbound, with any corrections suggested by the committee. Before a thesis is finally accepted by the Graduate School, it will be examined again to verify corrections and conformity to University requirements.

To be eligible for graduation a student must deposit the thesis in the Graduate School Office at least 10 days before the end of the semester or term or by the deadline published by the Graduate School. Theses filed after that date will be credited toward graduation the following semester or term. A student on academic probation is not eligible to submit a thesis or equivalent for acceptance by the Graduate School.

Examinations

Except for the 39-hour program options, an examination, oral, written, or both, must be taken by each student before receiving the master's degree. This examination covers the graduate work which the student is presenting for the degree. The time, place, and nature of the examination is determined by the student's advisory committee if the student selects the thesis option. The comprehensive examination is the responsibility of the department. **Comprehensive examinations may not be administered more than three times to individual students.**

Master of Fine Arts

Offered in the Department of Art and the Department of Theatre, the Master of Fine Arts (MFA) is a terminal degree that emphasizes theory and practice in a particular discipline of the arts.

Admission: All regular criteria for admission to a degree program in the Graduate School of the University will apply with the exception of the GRE requirement. In addition, applicants in the Department of Theatre must audition and applicants in the Department of Art must submit a portfolio along with meeting other department requirements.

This material will be reviewed by the members of the graduate faculty in the applicant's intended area of emphasis. After evaluations have been completed, the Office of Admissions and Records will notify the applicant of the decision regarding admission to the MFA.

Academic Advisers: In the Department of Art the student in the pre-candidacy phase of the program selects a major adviser with the help of the Director of Graduate Studies. With the help of the major adviser the student selects a candidacy review committee of three members. The chair-

person of this committee must be from the student's major area of emphasis. Normally, the candidacy review committee continues as the student's graduate committee during the candidacy phase of the program.

In the Department of Theatre the chairperson of the department, in consultation with faculty whom the chairperson deems appropriate, will select the candidate's Portfolio Committee. The committee chairperson must come from the student's major area of emphasis.

Curriculum Requirements: A professionally oriented program, the MFA requires a minimum of 60 hours for a student with only a bachelor's degree or a minimum of 32 hours for a student with an earned master's degree. The total hours required for a student with an earned master's degree will be based on an evaluation of the student's portfolio and academic record. However, the final determination will not be made until the student has completed a minimum of six semester hours in the student's major area of emphasis. A candidate for the degree must demonstrate proficiency both as a practitioner and a teacher in one of several areas of emphasis listed in the Graduate Catalog.

Transfer of Credit: In the Department of Art a student can transfer no more than nine semester hours of credit from any graduate program (including a master's program in Art at ISU) for use in meeting the requirements of the MFA degree. However, an earned master's degree is recognized and may defray up to 28 hours of the total 60 hours needed beyond the bachelors.

In the Department of Theatre a student who does not have an earned master's degree may present a maximum of six semester hours of credit from another college or university for use in meeting the requirements of the MFA degree. However, he/she may present all earned hours from a master's program in Theatre at ISU for use in meeting these requirements. A theatre student who has an earned master's degree must earn a minimum of 32 hours in the MFA program at ISU.

Residency: A student without an earned master's degree must complete a residency requirement of at least four semesters with at least two of them being full-time, consecutive semesters. A student with an earned master's degree must complete a residency requirement of at least two full-time, consecutive semesters. Summer session may be counted toward the two consecutive semester requirement only in the Department of Theatre.

Time Limitations: All work for the MFA degree must be completed within six calendar years after the student first registers as a degree student. In exceptional cases, if the student does not complete the work within this time, the six year limit may be extended by the Graduate Dean.

Admission to Candidacy: In order to be admitted to candidacy, the student without an earned master's degree must have completed 24 hours of graduate study at Illinois State University or two semesters of full-time resident study. The student with an earned master's degree must have completed 12 hours of graduate study at Illinois State University or one semester of full-time resident study. All students must have a grade average of B or better with no more than 5 (6 in the Theatre Department) hours below B. Before becoming a candidate for the MFA in Art the student must pass a candidacy review that includes approval of the following items: portfolio of studio work, final Plan of Study, and proposal for the Supportive Statement (an exhibition-related written project).

Before becoming a candidate for the MFA in Theatre the

student must have a Plan of Study on file with the Graduate School, and pass a qualifying examination which is administered by the student's MFA portfolio committee. Admission to candidacy, which usually occurs in the final semester, must be satisfied before the student is allowed to schedule an exit portfolio presentation.

General Course Limitations: Candidates for the MFA may present no more than 15 total hours of general courses 393, 397, 400, 493, and 498 toward their degree.

For additional program requirements see departmental sections of this catalog.

Certificate of Advanced Study

The College of Education offers the post-master's Certificate of Advanced Study (CAS) in the area of Educational Administration. The purpose of this program is to permit students to specialize within the field of educational administration. Completing appropriate course requirements and having proper field experiences may result in specialization leading to advanced professional certificates and endorsements by the State Teacher Certification Board. These include the General Administrative, Chief School Business Official, and Superintendent's endorsements.

Applicants for admission to the Certificate of Advanced Study program must: 1) hold a master's degree or equivalent from an accredited university, or be in the last semester of work leading to the master's degree; 2) have earned a minimum grade point average of 3.25, in work leading to the master's degree; and 3) present letters of recommendation pertaining to professional and academic competence. Admission involves approval by the department as well as the Graduate School.

After completion of a minimum of 9 hours and a maximum of 15 graduate hours, a student must apply for candidacy for the certificate. At least 15 hours of course work will be required after admission to candidacy.

To be considered as a candidate the student must: 1) have completed 9-15 semester hours of work with the CAS program at Illinois State University; 2) have a minimum graduate grade point average of 3.0 in course work completed; 3) have a Plan of Study approved by an adviser on file with the department and Graduate School; and 4) have removed all deficiencies. A student who fails to meet the admission to candidacy requirements will not be allowed to continue course work leading to the Certificate of Advanced Study.

Time Limitation and Transfer of Credit: All requirements for the Certificate of Advanced Study must be completed within six calendar years beginning with the date the student first registers in the program. Students who do not complete the work within this time may be requested to take additional course work to meet the certificate requirements. A student seeking the Certificate of Advanced Study may petition to transfer from another institution not more than six semester hours of graduate credit beyond the master's degree. The Dean of the Graduate School and the department chairperson must approve all transfer credit used in meeting the requirements for the Certificate of Advanced Study.

Residency: There is a residency requirement for the CAS program. The residency is fulfilled by enrollment for six semester hours for at least two terms. A term may be a semester or a summer session.

Doctor of Arts

Program Requirements

Admission: All regular criteria for admission to a degree program in the Graduate School of the University will apply. A student seeking admission to a doctoral degree program must present letters of recommendation and must take qualifying examinations before being admitted to the program. Admission to the program ordinarily requires at least previous successful teaching experience and a level of training equivalent to a master's degree in the discipline they wish to enter. Candidates for admission who do not meet departmental requirements will be considered on an individual basis and may require a personal interview. Admission involves approval by the department as well as the Graduate School.

Academic Advisers: The department chairperson, with the approval of the Dean of the Graduate School, appoints an academic adviser for each student admitted to a doctoral program. The adviser is responsible for approving the student's program of courses with the advice of departments representing, when applicable, both major and minor fields. Normally this function is assumed by the chairperson of the student's dissertation committee after the committee has been named.

Required Courses and Fields: A doctoral student may select both a major and a cognate field (or fields) of study. The selection of cognate field (or fields) must have the approval of the Dean of the Graduate School and the department directly involved. A cognate field may, under certain circumstances, be in the same department as a major field.

General Courses: Candidates for the D.A. may present no more than a total 15 hours of general courses 393, 397, 400, 493, 498 or 500 toward their degree.

Residency: A Doctor of Arts student, after completing work for a master's degree, or its equivalent must complete at least one semester of full time residency. The normal residence requirement is one year; but commuter students who make continuing progress in the program may have the residence requirement reduced to one semester. Continuing progress for a commuter student is defined as taking one course each semester and a full load each summer session. **A student will not be considered in residence while employed full-time.**

Extension Credit: With departmental approval not more than six semester hours graduate extension work offered by universities other than Illinois State University may be applied to the doctoral degree. **For courses offered by Illinois State University, no differentiation is made between credits earned on campus and off campus.**

Time Limitation: The Doctor of Arts degree is not granted on the basis of a student having successfully completed a certain number of courses, but after the candidate has demonstrated the required competency in the field. All work for the Doctor of Arts degree, including the dissertation, must be completed within seven calendar years after the student is admitted to a Doctor of Arts program.

Preliminary Examinations and Admission to Candidacy: A doctoral student may be admitted to candidacy after: 1) a Plan of Study is submitted to the Graduate School and approved, 2) receiving approval of the dissertation topic by

the dissertation committee and the Dean of the Graduate School; and 3) preliminary examinations have been completed and reported to the Graduate School. After the required number (15) of 599 hours of dissertation have been completed, the student is expected to register for one hour in course 599.01 each subsequent semester until the dissertation is submitted to, and formally approved by, the Graduate School.

The preliminary examination which may be written, oral, or oral and written will cover both major and minor fields. It will be concerned with 1) the student's professional competence in Higher Education, and 2) assessment of the student's ability to apply his/her knowledge to problems of teaching and curriculum development in his/her area. The Dean of the Graduate School appoints the examining committee which includes the student's academic adviser and a representative of the minor field (or fields).

Registration For Dissertation Work: Fifteen semester hours of 599 dissertation research are required for the Doctor of Arts degree. Any student using the services of the academic staff or the facilities of the University must be registered for the semester or term during which the services are rendered or facilities are used. Also, to register for 599 the student must actually be working on the research under the direction of the adviser or dissertation chairperson.

Continuous Registration: Once admitted to candidacy in a Doctor of Arts degree program, as defined by the Admission to Candidacy policy, and after the student has completed all coursework on the Plan of Study and the required number of hours (15) of 599, dissertation research, the student is required to maintain continuous registration. The requirement for continuous registration may be fulfilled by registering for Dissertation 599.01 (audit). The requirement for continuous registration does not apply during a summer term unless the student is graduating in that term. Registration for 599.01 may be in absentia. If circumstances prohibit continuing registration a student must request a leave of absence from the department and then from the Graduate Dean. Any student interrupting registration without obtaining a leave of absence will be withdrawn from the degree program. Any student requesting reinstatement in a degree program must direct such a request in writing to the department and, if approved, to the Graduate Dean. If reinstatement is approved, the student must then complete an application for readmission.

Dissertation Committee For D.A.: A D.A. dissertation is written under the direction of a dissertation committee appointed in a manner specified by the department. The committee consists of not fewer than five (5) members of the Graduate Faculty, one of whom shall be from outside the department. The committee chairperson must be a Full Member of the Graduate Faculty. No more than one member can be external to the University. That member must be approved by the Graduate Dean.

Dissertation For D.A.: The student is required to file an approved Proposal for Research with the department at the time and in a manner specified by the department. The title, scope, and design of the dissertation must be approved by the student's dissertation committee. A copy of the Proposal for Research approval form shall be deposited in the Graduate School no later than the early part of the semester or term in which completion of the doctoral degree is expected, in accordance with the deadlines published by the Graduate School.

Each candidate will be expected to complete a dissertation which is original and either 1) has relevance to the profession of college teaching, or 2) is an applied research

topic which demonstrates a combination of scholarly, analytical, creative, and expository skills. The dissertation for the D.A. may involve the application of existing knowledge or theory to a practical educational problem or situation.

Dissertation Acceptance: The dissertation must be tentatively accepted by the thesis and dissertation examiner of the Graduate School before the distribution of the final examination copies. The examiner will check the dissertation to ensure that the dissertation is consistent with the selected dissertation style and the Guide for Writers of Theses and Dissertations published by the Graduate School.

After tentative acceptance by the examiner the student must file two unbound examination copies of the dissertation in the departmental office at least one week (seven days) before the dissertation defense. The committee chairperson has the responsibility of notifying members of the department and the Graduate School that the copies have been made available for examination and the time and place of the defense. Following the defense, the student must file in the Graduate School the original and a copy of the approved dissertation, unbound, with any corrections suggested by the committee.

Before a dissertation is finally accepted by the Graduate School, it will be examined again to verify corrections and conformity to University requirements.

The student is not required to have the dissertation published but will be required to pay the expense of microfilming for distribution by University Microfilms.

To be eligible for graduation a student must deposit the dissertation in the Graduate School office at least 10 days before the end of the semester or by the deadlines published by the Graduate School. Dissertations filed after that date will be credited toward graduation the following semester or session.

Doctor of Philosophy and Doctor of Education

Program Requirements

Admission: A student seeking admission to a doctoral degree program must present letters of recommendation and must take qualifying examinations before being admitted to the program. The student may be required to come to the campus for an interview.

Admission of an applicant to a doctoral program will take account of personal and professional qualifications as well as scholastic records and measurement of academic ability. Admission involves approval by the department as well as the Graduate School.

Academic Adviser: The department chairperson, with the approval of the Dean of the Graduate School, appoints an academic adviser for each student admitted to a doctoral program. The adviser is responsible for approving the student's program of courses with the advice of departments representing, when applicable, both major and minor fields. Normally this function is assumed by the chairperson of the student's dissertation committee after that committee has been named.

Required Courses and Fields: A doctoral student may select both a major and a minor field (or fields) of study. The selection of a minor field (or fields) must have the approval of the Dean of the Graduate School and the

department directly involved. A minor field may, under certain circumstances, be in the same department as a major field.

General Courses: Candidates for the Ph.D. and Ed.D. may present no more than 15 total hours of general courses 393, 397, 400, 493 498 and 500 toward their degree.

Residency: A doctoral student (Ph.D., Ed.D.), after completing work for a master's degree or its equivalent, must be enrolled for at least two terms in residency in a 12-month period. A term is defined as an 18-week semester or an 8-week summer session. Residency is defined as successful completion of at least 9 semester hours of course work in an 18-week semester and 6 hours in the 8-week session.

Each student will file a declaration of residency for approval of the department chairperson and Graduate Dean prior to entering into residency and shall ask the chairperson to verify the completion of the residency. The declaration shall specify: 1) the nature and extent of employment; 2) how the student will become involved in the professional activities of the department; and 3) accessibility of libraries, laboratories, and research tools necessary for doctoral level study in the respective discipline. Any exceptions to the above requirements must have the approval of the department chairperson and the Graduate Dean.

A student will not be considered in residence while employed full-time.

Extension Credit: With departmental approval not more than six semester hours graduate extension work offered by universities other than Illinois State University may be applied to the doctoral degree. **For courses offered by Illinois State University, no differentiation is made between credits earned on campus and off campus.**

Time Limitations: The doctoral degree is not granted on the basis of a student having successfully completed a certain number of courses, but upon evidence of scholarly attainment as demonstrated especially by examinations and competence in research.

All work for the doctorate, including the dissertation, must be completed within eight calendar years after the student begins work beyond the master's level. If the student does not complete the work during this time, the student may be required to take additional qualifying examinations, or additional course work, or both, in order to continue in the doctoral program.

Language Requirement for the Ph.D.: In general, the Graduate School requires that a Ph.D. candidate have 1) a reading knowledge of two foreign languages or 2) advanced knowledge of one language. However, when approved by the department and the Graduate School a student may substitute other research tools or competencies. Departmental alternatives are described with departmental offerings in this catalog. Contact the Graduate School for more specific policies and procedures concerning the Ph.D. language requirement.

Research Tools for the Ed.D.: Ed.D. candidates who are not required to offer foreign languages as research tools are expected to have developed other competencies appropriate to doctoral candidates in their fields. These may involve proficiencies in such areas as statistics, measurement and evaluation, research techniques, and experience in field survey work or special course work.

As in the case with ability to use a foreign language, some research skill[®] may be the product of undergraduate and early graduate work. The concern of the Graduate School is that the doctoral candidates be able to understand the research work of leading scholars in their fields, that they

master the processes which enable them to do productive research themselves, and that they be able to report the research findings clearly to others.

Preliminary Examinations and Admission to Candidacy: A doctoral student may be admitted to candidacy after: 1) having a Plan of Study approved by the Graduate School, 2) meeting the foreign language requirement or alternate approved program, 3) passing a comprehensive preliminary examination, and 4) receiving approval of the dissertation topic.

The comprehensive preliminary examination is written, or, written and oral. It covers both major and minor fields. It also is concerned with the student's professional competence and ability to undertake independent research.

Registration For Dissertation Work: Fifteen semester hours of 599 dissertation research are required for the Ph.D. and Ed.D. degrees. Any student using the services of the academic staff or the facilities of the University must be registered for the semester or term during which the services are rendered or facilities are used. Also, to register for 599 the student must actually be working on the research under the direction of the adviser or dissertation chairperson.

Continuous Registration: Once admitted to candidacy in a Doctor of Philosophy or Doctor of Education degree program, as defined by the Admission to Candidacy policy, and after the student has completed all coursework on the Plan of Study and the required number of hours (15) of 599, dissertation research, the student is required to maintain continuous registration. The requirement for continuous registration may be fulfilled by registering for Dissertation 599.01 (audit). The requirement for continuous registration does not apply during a summer term unless the student is graduating in that term. Registration for 599.01 may be in absentia. If circumstances prohibit continuing registration a student must request a leave of absence from the department and then from the Graduate Dean. Any student interrupting registration without obtaining a leave of absence will be withdrawn from the degree program. Any student requesting reinstatement in a degree program must direct such a request in writing to the department and, if approved, to the Graduate Dean. If reinstatement is approved, the student must then complete an application for readmission.

Dissertation Committee For Ph.D. and Ed.D.: A dissertation is written under the direction of a dissertation committee appointed in a manner specified by the department. The committee normally consists of five members, but may not be fewer than four, all of whom are members of the Graduate Faculty. The committee chairperson must be a Full Member of the Graduate Faculty. No more than one member can be external to the University. That member must be approved by the Graduate Dean.

Dissertation For Ph.D. and Ed.D.: The student is required to file an approved Proposal for Research with the department at the time and in a manner specified by the department. The title, scope, and design of the dissertation must be approved by the student's dissertation committee. A copy of the Proposal for Research approval form shall be deposited in the Graduate School no later than the early part of the semester or term in which completion of the doctoral degree is expected, in accordance with the deadlines published by the Graduate School.

The dissertation for the Ph.D. must involve independent research and an original contribution to knowledge. While the dissertation for the Ed.D. may meet the above requirements, it is customary to allow greater flexibility for the

Ed.D. dissertation, so that it may, for instance, involve the application of existing knowledge or theory to a practical educational problem or situation.

Dissertation Acceptance: The dissertation must be tentatively accepted by the thesis and dissertation examiner of the Graduate School before the distribution of the final examination copies. The examiner will check the dissertation to ensure that the dissertation is consistent with the selected dissertation style and the Guide for Writers of Theses and Dissertations published by the Graduate School.

After tentative acceptance by the examiner the student must file two unbound examination copies of the dissertation in the departmental office at least one week (seven days) before the dissertation defense. The committee chairperson has the responsibility of notifying members of the department and the Graduate School that the copies

have been made available for examination and the time and place of the defense. Following the defense the student must file in the Graduate School the original and a copy of the approved dissertation, unbound, with any corrections suggested by the committee.

Before a dissertation is finally accepted by the Graduate School, it will be examined again to verify corrections and conformity to University requirements.

The student is not required to have the dissertation printed but will be required to pay the expense of microfilming for distribution by University Microfilms.

To be eligible for graduation a student must deposit the dissertation in the Graduate School office at least 10 days before the end of the semester or by the deadlines published by the Graduate School. Dissertations filed after that date will be credited toward graduation the following semester or session.



COLLEGES, DEPARTMENTS, AND COURSE OFFERINGS

Each student should assume responsibility for knowing the requirements for graduate programs and for complying with current policies.

Course Numbering System

This Graduate Catalog contains courses numbered 300 to 599.

Courses 300-399 are advanced undergraduate courses and are open to juniors, seniors, and graduate students unless the department has designated a 300-level course for undergraduate students only. Courses 400-499 are graduate courses.

Courses 500-599 generally are limited to terminal degree students in programs such as the D.A., Ed.D., M.F.A., and Ph.D.

The following information is given for each course, in the following order: course number (3 digits preceding the title), course title and credit value (in semester hours). Following the course description any prerequisites, restrictions on enrollment, and any special considerations are noted.

Limitation of credit: Candidates for a master's degree may present no more than 9 hours of credit from the asterisked courses toward their degrees (393, 397, 400, 493, 498 and 500). Candidates for a D.A., Ed.D., M.F.A., or Ph.D. may present no more than 15 hours of credit from such courses toward their degree.

General Courses

389 SELECTED STUDIES

1-6 sem. hrs.

Course not offered within the framework of existing departmental courses. The topic to be covered will be identified in the class schedule booklet each semester. Experimental courses and courses cutting across the departmental lines may be offered as selected studies.

393 WORKSHOP*

1-6 sem. hrs.

Advanced workshop for juniors, seniors, and graduate students. Credit will be given by the department offering the workshop. See statement on limitation of credit above.

397 INSTITUTE*

1-9 sem. hrs.

Federal and state sponsored institutes or similar short term programs requiring treatment of subject matter of a special nature or for special groups. See statement on limitation of credit above.

400 INDEPENDENT STUDY*

1-4 sem. hrs.

A maximum of six hours may be applied toward a master's degree. Intensive study in a special area of the advanced student's interest under a qualified member of the faculty. Each individual investigation is to culminate in a comprehensive written report and/or examination. **Open only to**

graduate students who have completed considerable work in a degree program, who are in good academic standing, and who have demonstrated ability to profit from independent study. A written proposal approved by the faculty member, the student's adviser, and the department chairperson is required prior to registration. See statement on limitation of credit above.

489 ADVANCED STUDY

1-6 sem. hrs.

Advanced course work not offered within the framework of existing departmental courses. The topic to be covered will be identified in the class schedule booklet each semester. Experimental courses and courses cutting across departmental lines may be offered as advanced studies.

493 WORKSHOP*

1-6 credit hrs.

Workshop for graduate students. Intensive and applied work in one or more subject areas or disciplines. Designed as an opportunity for updating skills and knowledge and intended primarily for teachers and other inservice professionals. Credit will be given by the department offering the workshop. See statement on limitation of credit above.

498 PROFESSIONAL PRACTICE*

1-12 sem. hrs.

Supervised work experience in local, state, national, and international businesses, agencies, institutions, and organizations. The experience is planned, administered, and supervised at the departmental level and coordinated through the Office of Professional Practice. If the site is in an educational agency or institution, the placement must be approved by the Office of Clinical Experiences and Certification Processes. Written objectives and modes of evaluation shall be approved by the faculty supervisor and department chairperson prior to the beginning of the semester. In a degree program, Professional Practice 498 cannot constitute more than 20% of the hours applied for graduation. Open only to graduate students who have completed considerable work in a degree program, who are in good academic standing, and who have demonstrated ability to profit from professional practice experience. See statement on limitation of credit above.

All departments that wish to offer 498 Professional Practice must have a curriculum proposal approved by the Graduate Curriculum Committee prior to use.

499 MASTER'S THESIS

1-6 sem. hrs.

A student electing the thesis option must take from four to six hours of 499. While registration beyond six hours may be permitted for the convenience of the student, he/she may not count more than a total of six hours of 499 among the 32 required for the master's degree.

500 INDEPENDENT STUDY***1-4 sem. hrs.**

A maximum of twelve hours may be applied toward the Master of Fine Arts and the Doctoral degree. Intensive study in a special area of the advanced student's interest under a qualified member of the faculty. Each individual investigation is to culminate in a comprehensive written report and/or examination. Open only to graduate students who have completed considerable work in a degree program, who are in good academic standing, and who have demonstrated ability to profit from independent study. A written proposal approved by the faculty member, the student's adviser, and the department chairperson is required prior to registration. See statement on limitation of credit above.

589 ADVANCED DOCTORAL STUDY

Doctoral-level course work under a qualified member of the graduate faculty, in subject matter not offered within

the framework of existing departmental courses. The topic to be covered will be identified in the class schedule booklet each semester.

599 DOCTORAL RESEARCH**1-15 sem. hrs.**

Research involving the gathering of data to form the basis of the doctoral dissertation. For further information refer to the appropriate degree in the section on Fields of Study and Degrees Granted.

Interdisciplinary Studies**391 WOMEN'S STUDIES SEMINAR****1-3 sem hrs.**

Detailed study of current selected topics. May be repeated. Maximum 6 hrs.



COLLEGE OF APPLIED SCIENCE AND TECHNOLOGY

Dean: Elizabeth Chapman, 145 Turner

The Departments of Agriculture; Applied Computer Science; Criminal Justice Sciences; Health, Physical Education, Recreation, and Dance; Health Sciences; Home Economics; Industrial Technology and Military Science constitute the College of Applied Science and Technology. Undergraduate and graduate programs of the College are designed to prepare students for professional and/or technical positions in education, government, business and industry.

AGRICULTURE (AGR)

Chairperson: R.D. Henry, Office: 150 Turner Hall.

Graduate Faculty: M. Balbach, W. Chrudimsky, F. Fuess, R. Henry, C. Moore, P. O'Rourke, P. Walker, R. Whitacre, J. Winter, J. Wood.

Programs Offered

The Department of Agriculture participates in an inter-institutional M.S. Program in Agriculture with the University of Illinois. The primary purpose of this cooperative program is to provide an opportunity for professional workers in the field of Agriculture living in the Normal and Bloomington area to pursue advanced degrees at the University of Illinois. For details of this program contact the Department of Agriculture at Illinois State University. A career option leading to general administrative endorsement with emphasis in vocational education is offered in cooperation with the Department of Educational Administration and Foundations through Agriculture, Business Education and Administrative Services, Home Economics, and Industrial Technology departments. Students interested in the vocational emphasis should (A) see department chairperson or appropriate adviser, and (B) file an Intent to File for Certification form in the Office of Clinical Experiences and Certification Processes. All students who plan to receive certification for the State of Illinois via an approved ISU program must file official forms and follow specific procedures. Certification is not given automatically at the completion of specific course work or degree program.

Courses

302 SPECIAL PROBLEMS IN AGRICULTURE

1-3 sem. hrs.

Special work in research interests of student and staff. Projects must be approved by the staff member and the chairperson of the department. Prerequisite: Comprehensive major or minor in AGR, or Agribusiness. May be repeated. Max. 6 hours.

303 SEMINAR IN AGRICULTURE

1 sem. hr.

Senior or graduate standing.

310 RURAL APPRAISALS

3 sem. hrs.

Principles, procedures, and terminology for evaluating rural property; preparation of appraisal reports as currently prepared by qualified and experienced rural appraisers. Prerequisites: AGR 216 or 318 or ACC 131 recommended, and an academic background in agriculture.

313 ADVANCED FARM MANAGEMENT

3 sem. hrs.

Farm business decisions and their interrelationships. Examination of statics, dynamics and uncertainty in agricultural decision-making. Prerequisites: AGR 213, 216.

314 GRAIN MARKETING

3 sem. hrs.

Economics and marketing problems in grain industry. Special emphasis on futures marketing. Prerequisite: AGR 214.

315 FINANCIAL MANAGEMENT AND ANALYSIS OF THE AGRIBUSINESS FIRM

3 sem. hrs.

Application of quantitative concepts and methods to the analysis and financial management of proprietary and cooperative agribusiness firms. Prerequisites: AGR 215; MAT 120; AGR 216 or ACC 131, or consent of instructor.

316 LIVESTOCK MARKETING

2 sem. hrs.

Economic principles applied to marketing of livestock and livestock products. Consideration given to producers, processors, and distributors. Prerequisite: AGR 214.

318 AGRICULTURE FINANCE

3 sem. hrs.

The principles of agriculture finance including the capital requirements, the sources of credit, and the optimum uses of capital. Prerequisite: AGR 216 or ACC 131.

319 AGRICULTURAL POLICIES AND PROGRAMS

3 sem. hrs.

History and impact of government intervention in agriculture. Examination of major agricultural programs, past and present. Prerequisite: AGR 110; ECO 240 recommended.

320 FARM COMMODITY PRICING

3 sem. hrs.

Analysis of the theory and mechanics of price determination for agricultural commodities. Prerequisite: AGR 214; ECO 240 recommended.

340 EQUIPMENT FOR PRODUCING AND HANDLING AGRICULTURAL PRODUCTS

3 sem. hrs.

Selection, design, operation, adjustment and maintenance of machinery and equipment used in producing, storing, and processing agricultural products. Prerequisite: AGR 130. Lecture and laboratory. Field trips.

345 AGRICULTURAL ACCIDENT PREVENTION**3 sem. hrs.**

Major problems of accident causation and prevention applicable to agriculture and the need for farm safety education. Materials charge optional. Also offered as IT 373.

352 TURF MANAGEMENT**3 sem. hrs.**

Principles and practices used in management of turf grasses, residential and recreational turf. Prerequisite: AGR 150 or BSC 192.

353 LANDSCAPE DESIGN AND CONSTRUCTION**3 sem. hrs.**

Problem approach to landscape design and construction. Site surveys and analyses. Plant selection and preparation of functional designs. Lectures and practice in landscape design. Prerequisites: AGR 252 and 255.

355 PLANT BREEDING**3 sem. hrs.**

Breeding procedures and techniques used in developing new varieties of field crops. Prerequisite: AGR 272.

356 PLANT PROPAGATION**3 sem. hrs.**

Basic principles and commercial practices involved in sexual and asexual propagation of agricultural plants. Prerequisite: AGR 150 or BSC 192. Lecture and laboratory. Offered odd numbered years.

357 SOIL FERTILITY AND FERTILIZERS**4 sem. hrs.**

Fundamental concepts of soil fertility and fertilizer manufacturing. Plant nutrition, factors affecting plant growth, soil-plant relationships, and macro- and micro-nutrients. Prerequisite: AGR 157. Lecture and laboratory. Field trips.

358 SOIL MANAGEMENT**3 sem. hrs.**

The application of physical and chemical properties of soils to their management. Prerequisite: AGR 157.

360 CROP CONDITIONING AND STORAGE**3 sem. hrs.**

A comprehensive study of the chemical, physical, and physiological aspects of crop conditioning and storage with emphasis on soybeans and grain crops. Prerequisites: AGR 250 and 5 hrs. CHE.

372 LIVESTOCK BREEDING**3 sem. hrs.**

Reproduction and principles of heredity and their application to livestock breeding; population genetics, inbreeding, relationship, outbreeding, and selection. Prerequisite: AGR 272 or BSC 319.

373 REPRODUCTIVE PHYSIOLOGY AND MILK SECRETION**3 sem. hrs.**

Reproduction in livestock, anatomy of the reproductive and hormonal systems, physiological and hormonal aspects of lactation. Prerequisite: AGR 170.

374 DAIRY CATTLE FEEDING AND MANAGEMENT**3 sem. hrs.**

Feeding and management of dairy cattle as they relate to an economic dairy farm operation. Prerequisite: AGR 274. Field trips.

375 ANIMAL NUTRITION**3 sem. hrs.**

Science of animal nutrition; special attention to recent discoveries pertaining to the protein, mineral and vitamin requirements of livestock. Prerequisites: AGR 170, 171. Field trips. Offered odd numbered years.

380 ORGANIZATION AND ADMINISTRATION OF VOCATIONAL COOPERATIVE EDUCATION PROGRAMS**3 sem. hrs.**

Planning and organizing a cooperative program; emphasis on recruitment, selection of training stations, student placement, and operation of cooperative plan. Also offered as BEA 380, HEC 380, IT 305. Includes clinical experiences.

382 COORDINATION TECHNIQUES OF COOPERATIVE VOCATIONAL EDUCATION PROGRAMS**3 sem. hrs.**

Coordination techniques needed for high school and post-secondary teacher coordination in integrating classroom activities with daily employment. Also offered as BEA 382, HEC 382 and IT 306. Includes clinical experiences.

396 METHODS AND PROCEDURES IN AGRICULTURAL EDUCATION**5 sem. hrs.**

Procedures in planning, conducting, and evaluating an agricultural education program; philosophical inquiry in education; teaching special needs students. Includes clinical experiences.

401 ORGANIZING AND TEACHING AGRICULTURAL MECHANICS**2 sem. hrs.**

Developing competencies in planning, teaching, and evaluating a total high school agricultural mechanics program. Emphasis on facilities, instructional materials, and safety. Prerequisites: Agricultural Education major, consent of instructor.

APPLIED COMPUTER SCIENCE (ACS)

Chairperson: Lawrence Eggan. Office: 133B Stevenson Hall.

Graduate Faculty: B. Beccue, L. Brumbaugh, C. Chrisman, G. Chrisman, L. Eggan, J. Hartman, D. Kephart, D. Sanders, D. Wallace.

Master of Science Degree in Applied Computer Science**Programs Offered**

The Department of Applied Computer Science offers work leading to a Master of Science degree in Applied Computer Science. Elective courses taken without prior approval of a graduate adviser may not count towards a degree. There are two options within the degree.

Option I: Option I is a 32 hour program that requires a thesis. Of the 32 hours required, at least 23 must be in Applied Computer Science. Exclusive of hours earned for ACS 499 (Master's Thesis), all students must complete a minimum of 18 hours of 400-level course work with at least 15 of these in Applied Computer Science.

Option II: Option II is a 39 hour program that requires a synthesizing experience consisting of 6 hours of Graduate Directed Project 494. Of the 39 hours required, at least 27 must be in Applied Computer Science. Exclusive of hours earned for ACS 494, all students must complete a minimum of 18 hours of 400-level course work with at least 15 of these in Applied Computer Science.

Admission Requirements

All University and Graduate School requirements for admission to a degree program of the Graduate School will apply. Additional departmental requirements are listed below.

Applicants must have a bachelor's degree from an accredited university or college with a grade point average (GPA) of at least 3.0 (B) on a 4.0 scale, calculated over the last 60 undergraduate hours. The undergraduate degree need not be in computer science, but applicants must present evidence of undergraduate instruction or job experience equivalent to the following: proficiency in one high level programming language such as COBOL, FORTRAN, PASCAL, or PL/I; ability to develop and execute a program on a microcomputer system and on either a minicomputer or a mainframe system; and understanding of basic data structures and file organizations.

Applicants must submit scores from the Graduate Record Examination (GRE). The GRE verbal and quantitative scores must each exceed 400, and the sum of the two scores must exceed 1000. Students who complete the TOEFL examination must score at least 550.

Each student's transcript will be reviewed by a departmental graduate adviser during the admission process. The graduate adviser will assist the student in formulating a plan of study.

Proficiency Examinations

Students with deficiencies in course prerequisites may take an appropriate undergraduate course for no graduate credit or may pass an appropriate proficiency examination. The Graduate Program Committee of the Department of Applied Computer Science will administer the proficiency examination. No proficiency examination will be allowed for required or elective courses.

Waivers for Prior Learning

In extraordinary cases where a student has significant prior learning experience in a relevant prerequisite area but has not taken the prerequisite course, the Graduate Program Committee of the Department of Applied Computer Science may waive prerequisites based upon the evidence presented. Although nonacademic experience may be substituted for a prerequisite course, academic credit will not be awarded for such experience.

Curriculum Requirements

In consultation with the Graduate Adviser, each student must select one course from each of the following areas of competence. Except for Technical Communications, each area must be represented by a course taken as a graduate student.

Systems Analysis & Design (ACS 432, ACS 460)
Data Communications (ACS 375, ACS 475)
Database (ACS 378, ACS 478)
Technical Communications (ENG 349, IT 349, BEA 416)

In addition each student must complete ACS 463, ACS 467, 8-15 hours of electives depending on the option

selected, and ACS 499 (Master's Thesis) if under Option I or ACS 494 (Graduate Directed Project) if under Option II.

Courses

325 COMPUTER ORGANIZATION

3 sem. hrs.

Introduction to hardware and software topics in computer organization. Instructions, modalities, control units, memories, data paths, uniprocessors and multiprocessors. Prerequisite: ACS 283.

344 DISCRETE SYSTEM SIMULATION

3 sem. hrs.

Problem solving using discrete simulation languages and techniques. Applied queuing theory, pseudo-random numbers, model verification and validation, experimental design. Prerequisites: ACS 169 or 273 or 274; MAT 121 or 146; and a one semester course in prob./Stat. Also offered as MQM 344. Materials charge optional.

345 APPLIED COMPUTER MODELING

3 sem. hrs.

Computer-based modeling methodologies applied to complex social and natural systems. Simulation languages, system dynamics, case studies, and modeling projects. Prerequisites: MAT 121 or 146; ACS 164 or 168 or 273 or ACC 266. ACS 169 recommended. Materials charge optional.

355 MICROCOMPUTER APPLICATION AND DESIGN II

3 sem. hrs.

Microcomputer applications with an emphasis on basic microcomputer architecture, interfacing peripherals, machine language programming, and system software design. Prerequisites: ACS 255. ACS 283 recommended. Materials charge optional.

356 INTRODUCTION TO COMPUTER GRAPHICS

3 sem. hrs.

Graphics Systems: hardware, software, people, 2-D and 3-D Algorithms: lines, curves, polygons, surfaces, transformations. Applications: presentation graphics, packages. Prerequisites: ACS 278, MAT 147 and 175 required. Materials charge optional.

363 INTRODUCTION TO SYSTEMS DEVELOPMENT

4 sem. hrs.

Development of computerized information systems emphasizing structured systems analysis and the project leader's role in the organization and control of the development process. Prerequisite: COM 223 and at least 15 hours in ACS. Materials charge optional.

364 SOFTWARE DESIGN

3 sem. hrs.

Structured design methodologies and implementation strategies in information system software development. Emphasizes psychological aspects of development, accurate reflection of the problem, correctness, reliability, maintainability. Prerequisite: ACS 363. Materials charge optional.

368 TOPICS IN SYSTEMS DESIGN

3 sem. hrs.

Advanced topics in systems analysis, design, and development. Prerequisites: ACS 363 and 364. Materials charge optional.

372 EXTERNAL DATA STRUCTURES**3 sem. hrs.**

External file design, VSAM, IBM utilities and sort/merge, basic concepts of IBM/MVS operating systems, and extensive study of JCL. Prerequisite: ACS 272. Materials charge optional.

375 INTRODUCTION TO DATA COMMUNICATIONS**3 sem. hrs.**

Introduction to hardware and software used in data communications and networking. Network types, architectures and protocols. Local area networks. Prerequisites: A two-semester sequence in a high-level programming language. Materials charge optional.

376 INTRODUCTION TO ONLINE SYSTEMS**3 sem. hrs.**

Design, development and implementation of online system applications using CICS with studies in data communications concepts, hardware, man-machine interaction, networking, and distributed processing. Prerequisites: ACS 363, and 372 or concurrent registration. Materials charge optional.

378 DATABASE PROCESSING**3 sem. hrs.**

Database software design philosophies: hierarchical, network, relational. Study of major commercial packages. Implications for systems development and management of the information resource. Prerequisites: ACS 278, 363 and concurrent registration in 372. Materials charge optional.

383 PRINCIPLES OF OPERATING SYSTEMS**3 sem. hrs.**

Functional criteria for operating system design. Job management, task management, data management, resource allocation, and dump and trace facilities. Prerequisite: ACS 283.

385 TOPICS IN COMPUTER SCIENCE**3 sem. hrs.**

In-depth study of a topic such as compiler design, artificial intelligence, programming language, and digital logic design. May be repeated if content different. Prerequisites: Vary with offering.

400 INDEPENDENT STUDY**1-3 hrs.**

Prerequisite: Consent of department. Materials charge optional.

401 INTRODUCTION TO MICROCOMPUTERS IN THE SCHOOLS**3 sem. hrs.**

Provides teachers and administrators with appropriate information to evaluate and infuse microcomputers and software into an educational environment. Also offered as EAF 401. Not for graduate credit for ACS majors.

405 SURVEY OF BUSINESS DATA PROCESSING**3 sem. hrs.**

This course compresses into a single semester material ordinarily covered in a beginning business data processing class and a business systems analysis class. Enrollment is limited to those students who have not had ACC 166 or its equivalent. Prerequisite: Admission to a graduate business program. This course cannot be taken for credit in Accounting, MBA or ACS graduate programs. Also offered as ACC 405.

411 PASCAL WITH DATA STRUCTURES I**3 sem. hrs.**

Uses Pascal to develop skills in problem solving, algorithm development, structured programming, and documentation. Introduces elementary data structures. Materials charge optional.

412 PASCAL WITH DATA STRUCTURES II**3 sem. hrs.**

Continuation of ACS 411 emphasizing data structures. Topics include: arrays, files, records, linked lists, trees, recursion, sorting, and searching. Prerequisite: ACS 411. Materials charge optional.

427 PRINCIPLES OF PROGRAMMING LANGUAGES**3 sem. hrs.**

Survey of pragmatic, syntactic and semantic structure of programming languages. Procedural, logic oriented, object oriented and other contemporary languages included. Prerequisites: Two high level programming languages, ACS 278 required. Materials charge optional.

432 SYSTEMS ANALYSIS AND DESIGN**3 sem. hrs.**

Study of systems development life-cycle emphasizing current techniques for documenting users' requirements and producing maintainable, cost effective systems. Prerequisites: A two-semester sequence in a high-level programming language. Not for credit if ACS 364 has already been taken. Materials charge optional.

440 ARTIFICIAL INTELLIGENCE AND EXPERT SYSTEMS**3 sem. hrs.**

Study of artificial intelligence principles, software, and major areas of application. Emphasis on expert systems. Prerequisites: ACS 278 required, ACS 255 recommended.

451 INFORMATION SYSTEM SECURITY**3 sem. hrs.**

Information system security issues including identification, cost estimation, and control of risks. Prerequisites: ACS 432 or 460. Materials charge optional.

456 ADVANCED COMPUTER GRAPHICS**3 sem. hrs.**

Advanced graphics techniques emphasizing 3-dimensional images. Standards, representation of scientific phenomena, animation, and image processing are also studied. Prerequisite: ACS 356 required. Materials charge optional.

460 SOFTWARE DEVELOPMENT PRACTICES**3 sem. hrs.**

Study of modern methods, techniques, and tools for software development. Topics include: end-user computing, prototyping, and productivity tools. Prerequisites: ACS 432 or both ACS 363 and ACS 364. Materials charge optional.

463 CONTROLLING SOFTWARE DEVELOPMENT**3 sem. hrs.**

Techniques for planning and supervising software development projects, allocating resources, projecting costs, and tracking project progress. Prerequisites: ACS 432 or ACS 460. Materials charge optional.

467 HUMAN FACTORS IN INFORMATION SYSTEMS**3 sem. hrs.**

Human factors issues in developing information systems: design guidelines, psychological principles, incorporation into a systems development life cycle. Prerequisites: ACS 432 or ACS 460 required. Materials charge optional.

468 SOFTWARE QUALITY ASSURANCE AND TESTING**3 sem. hrs.**

Major techniques for improving software quality; quality assurance, software controls, and software testing. Prerequisite: ACS 432 or 460 required. Materials charge optional.

475 ADVANCED DATA COMMUNICATIONS AND NETWORKS**3 sem. hrs.**

Study of network design, standards, and protocols; hardware and software; layered network architecture; telecommunications access methods; terminals and data streams. Prerequisite: ACS 375, or ACS 376.

478 ADVANCED DATABASE MANAGEMENT**3 sem. hrs.**

Theory, design, and implementation of application systems using database technology. Data modeling, database administration, database implementation, performance issues, current trends. Prerequisite: ACS 378. Materials charge optional.

492 SEMINAR IN APPLIED COMPUTER SCIENCE**2 sem. hrs.**

Advanced students meet under the guidance of a faculty member to present oral and written reports of current research projects. Prerequisites: ACS 375 or 475 and ACS 378 or 478 and ACS 432 or 460 and ENG 349 or BEA 416.

494 GRADUATE DIRECTED PROJECT**2-4 sem. hrs.**

Software development practicum for graduate students. Designed to integrate computer related skills in an intensive project environment. Prerequisites: Consent of Graduate Program Committee. May be repeated to a maximum of 6 credit hours. Materials charge optional.

499 MASTER'S THESIS**1-6 sem. hrs.**

CRIMINAL JUSTICE SCIENCES (CJS)

Chairperson: Steven G. Cox, Office: 401 Schroeder Hall.
Graduate Faculty: S. Cox, J. Crank, J. Klofas, F. Morn, B. Smith, R. Weisheit, L. Wells.

Master's Degree in Criminal Justice Sciences

The Department of Criminal Justice Sciences offers a program leading to the M.A. or M.S. degree. The primary purpose of the program is to provide the criminal justice student with a broad knowledge base in criminal justice that is generic and systemic in nature. Course work in the program is designed to increase individual competency, develop analytical thought processes, and facilitate the development of abilities and skills. Course work focuses on examination of contemporary issues in the administration of justice, counseling, research, and management problems in the field of criminal justice. Through the advanced study of theoretical and applied issues in criminal justice, the master's degree student will be prepared to assume leadership positions in the field of criminal justice. Study in criminal justice is interdisciplinary, drawing on concepts, theories and applications from the social sciences.

The curriculum is flexible, permitting students to pursue course work reflective of their individual career needs and

goals. This flexibility has been accomplished by providing a core of courses required of all students with a number of courses to be elected from offerings in the Department of Criminal Justice Sciences and other University departments in consultation with the graduate student adviser. Areas of concentration include criminal justice administration, the etiology of criminal behavior, criminal justice research, and counseling. Selected electives should reflect the student's area of concentration.

Students admitted to the graduate program who do not have an undergraduate degree in Criminal Justice, or substantial course work in Criminal Justice should review the Criminal Justice Sciences Reading List for New Graduate Students and read in those areas where they are deficient.

Program Requirements

The Department offers a thesis or comprehensive option for completion of the master's degree. Students completing the thesis option must complete 32 hours of course work including CJS 499 for six (6) hours of credit. Required courses for the thesis option include CJS 401, 402, 421, 423, 497, 499, SAS 467 and seven (7) hours of electives selected with the approval of the graduate student adviser. Students completing the comprehensive option must complete 34 hours of course work and successfully pass a comprehensive examination. Required courses for the comprehensive option include CJS 400, 401, 402, 421, 423, 497, SAS 467 and eleven (11) hours of electives selected with the approval of the graduate student adviser.

Internship in Criminal Justice Sciences

Each student working toward a master's degree in Criminal Justice Sciences may complete three (3) credit hours of internship as an elective in a criminal justice setting related to his/her area of specialization. This translates into eighteen (18) clock-hours weekly of field-related experience during one semester. The internship is rooted in the conceptual base of the program, namely, the objective of enabling advanced-level professionals to meet the needs of the criminal justice field. It will involve placement in agencies which agree to provide supervised experience at a level corresponding to the student's academic development and career goals. Because an internship is viewed as an opportunity to integrate concepts acquired on campus with the practical problems of the criminal justice field, students will normally not be approved for enrollment in internship prior to completion of a minimum of sixteen (16) graduate hours.

For additional information contact the Chairperson, Department of Criminal Justice Sciences, Illinois State University.

Courses

300 EVALUATIVE RESEARCH OF PROGRAMS IN CRIMINAL JUSTICE**3 sem. hrs.**

Course enables students to analyze research in criminal justice and systematically evaluate the process and outcome of programs in the field. Prerequisite: CJS 101, or consent of department.

303 POLICE ATTITUDES AND BEHAVIOR**3 sem. hrs.**

An analysis of police attitudes and behavior focusing on occupational roles, police social systems, community/ minority relations, and police practices. Prerequisite: CJS 101, or consent of department.

304 CRIMINAL LAW**3 sem. hrs.**

Survey of criminal law including development of substantive criminal law. Examination of judicial opinions related to the criminal justice process. Prerequisite: CJS 101, or consent of department.

305 RULES OF EVIDENCE FOR THE ADMINISTRATION OF JUSTICE**3 sem. hrs.**

Examination of types of evidence, standards of proof, and legal requirements relating to the admissibility of evidence in court. Prerequisite: CJS 101, or consent of department. POS 326 recommended.

310 CORRECTIONAL INSTITUTIONS**3 sem. hrs.**

An intensive analysis of correctional institutions and jails focusing on management issues, inmate subcultures and prisonization. Materials charge optional. Prerequisites: CJS 101, 200, or consent of department.

322 CORRECTIONAL COUNSELING**3 sem. hrs.**

Development of interpersonal communication and decision-making skills for direct intervention with correctional clients. Materials charge optional. Prerequisite: CJS 201, or consent of department.

339 WOMEN IN CRIMINAL JUSTICE**3 sem. hrs.**

Examines historical and theoretical perspectives and contemporary trends concerning women and crime, and processing of women by the criminal justice system. Prerequisite: CJS 101, or consent of department.

340 ORGANIZED AND WHITE COLLAR CRIME**3 sem. hrs.**

Analysis of organized and white collar crime problem in America. Topics include prevalence, impact, laws, and investigative techniques. Prerequisite: CJS 101, or consent of department.

360 ISSUES IN CRIMINAL JUSTICE**1-4 sem. hrs.**

A critical and analytical study of a contemporary issue or controversy in the field of criminal justice. May be repeated once if content different.

400 INDEPENDENT STUDY**1-4 sem. hrs.**

Refer to Index for General Courses.

401 CRIMINOLOGICAL THEORY**3 sem. hrs.**

An intensive study and critical analysis of criminological theories and their contribution to the field of criminal justice.

402 ISSUES IN JUSTICE**4 sem. hrs.**

A critical study of major contributions to the literature of criminal justice with an emphasis on analysis of problems. May not be repeated.

421 MANAGEMENT ISSUES IN THE CRIMINAL JUSTICE SYSTEM**3 sem. hrs.**

An examination of selected criminal justice system management issues and problems focusing specifically on law enforcement, the courts, and corrections.

423 INTERVENTION STRATEGIES FOR CRIMINAL JUSTICE PERSONNEL AND CLIENTS**3-4 sem. hrs.**

A study of intervention strategies utilized to cope with psychosocial human interaction problems in the criminal justice system. Prerequisite: CJS 322 or equivalent.

464 THEORIES AND TECHNIQUES OF COUNSELING**3 sem. hrs.**

Goals, methods, and procedures of different theoretical positions. Emphasis is on interpersonal dimensions of the counseling interview. Offered in SED or PSY.

465 SOCIOLOGY OF FORMAL ORGANIZATIONS**3 sem. hrs.**

Analysis of classical organizational models including: Weberian, Classical Management, Human Relations, Decision Making, and Political Process. Focus on environmental, contextual, structural, process, and performance dimensions of organizations. Offered in SAS.

467 SOCIOLOGY OF LAW**3 sem. hrs.**

Sociological theories of law and research on law in society. Attention to judicial and jury decision-making, legal structures, legislation, power, beliefs, conflict, and social change. Public, civil, and criminal law included. Offered in SAS.

497 INTRODUCTION TO RESEARCH**3 sem. hrs.**

Selection of a research problem, collection of data, types of research, the research report, and use of the library in connection with the research problem. Emphasis on understanding and interpreting frequently used statistical concepts. Provides a background for the preparation of the thesis. Enables the student to become an intelligent consumer of the products of educational research. Prerequisite: CJS 300 or an equivalent undergraduate research/statistics course.

498 PROFESSIONAL PRACTICE IN CRIMINAL JUSTICE**3 sem. hrs.**

Refer to Index for General Courses.

499 MASTER'S THESIS**1-6 sem. hrs.**

HEALTH, PHYSICAL EDUCATION, RECREATION, AND DANCE (HPR)

Chairperson: Joel Thirer. Office: Horton Fieldhouse 215.

Graduate Faculty: B. Bass, L. Belknap, V. Crafts, A. Davami, P. Dohrmann, C. B. Eichstaedt, C. Imel, G. Kassing, W. Kauth, R. Koehler, S. Little, R. Liverman, A. Nolte, M. Ricard, N. Stumbo, J. Thirer, W. Truex, E. Verner, P. Wang, M. Weisbecker, R. Weller.

Programs Offered

The HPERD Department offers a Master of Science and a Master of Arts Degree in Health and Physical Education. Students seeking an Ed.D. in Educational Administration may, with approval, have a program of study including credit hours in HPR. All students seeking an advanced degree should have an adviser to aid them in developing a plan of study.

Two program options are available in the HPERD department: the 32 hour thesis option requires 32 hours of approved graduate level course work including 4-6 hours of credit in Master's Thesis 499; this option requires a minimum of 15 hours of 400 level course work excluding Master's Thesis 499. A total of 24 hours of HPR courses is required which is inclusive of the 9 hour CORE and 4-6 hours of thesis credit. The 39 hour option requires 39 hours of approved graduate level course work; this option requires a minimum of 18 hours of 400 level course work. A total of 27 hours of HPR courses is required which is inclusive of the 9 hour CORE. HPR 443 is the synthesizing experience required of all students taking the 39 hour option, and students must have completed 24 hours prior to enrollment in this course.

It should be noted that approval is required to register for HPR 400, 448, 498 and 499. Students should confer with their adviser and the graduate program director prior to registration in these courses.

All graduate students seeking an advanced degree in Health and Physical Education will also take 9 semester hours in a CORE requirement: Introduction to Research 497; Statistical Applications in HPER 446; and Philosophy of HPER 442. Areas of specialized study within the program may be developed through faculty-student advisement. Individual programs of study can be developed within the areas of Health Education, Physical Education and Recreation. University requirements for master's degree are listed elsewhere in the catalog.

Courses

304 TEACHING OF SPORTS

3 sem. hrs.

Optimal learning in human movement: content, teacher behavior, situational conditions, analysis of sports, instructional approaches, application and research.

306 PSYCHOLOGY OF SPORT

3 sem. hrs.

Psychological principles and concepts applied to sport situations and to individuals involved with sport activities. Prerequisite: PSY 111 recommended.

317 SOCIOLOGY OF SPORT

3 sem. hrs.

The social institution of sport is examined using such sociological concepts as social organization, culture, socialization, deviance, social stratification, minority groups and collective behavior. Also offered as SAS 317.

349 APPLIED MOTOR LEARNING

3 sem. hrs.

Perceptual-motor development and performance. Application of research, learning theories and assessment tools; maturational, perceptual, and performance factors.

351 EXERCISE PHYSIOLOGY

3 sem. hrs.

Utilization of human physiology in teaching physical education. Effects of exercise on body systems and physical efficiency tests and studies. Prerequisite: HPR 181 or 157.

352 BIOMECHANICS OF HUMAN MOVEMENT

3 sem. hrs.

Amplification of kinematics, including kinetics of human movements; introduction to high speed cinematography, biomechanics instrumentation and computer analysis. Prerequisites: HPR 282, or consent of instructor; PHY 108, MAT 108 recommended. Materials charge optional.

359 CAMP LEADERSHIP PRACTICUM WITH THE DISADVANTAGED CHILD

3 sem. hrs.

Practical experiences in camp counseling and administration in a resident group setting with disadvantaged children. Prerequisite: Consent of instructor. Students are required to live at the camp.

360 SPECIAL METHODS IN DANCE II

3 sem. hrs.

Supervised clinical experiences in teaching dance to secondary school, studio, and agency populations; selection of materials and instructional strategies for these groups. Prerequisite: HPR 260 or consent of instructor. Includes clinical experiences.

362 ADVANCED MODERN DANCE

3 sem. hrs.

Continued technical and theoretical development in modern dance. Prerequisites: Consent of instructor. May be repeated for maximum of 6 hrs., but not more than 3 hrs. may be counted toward the requirements for Master's degree. Prerequisite: HPR 162. Formerly HPR 167.

363 STUDIES IN BALLET II

2 sem. hrs.

The study of intermediate-advanced ballet technique and theory. Prerequisites: HPR 163 (formerly 165) or consent of instructor. May be repeated for maximum of 6 hrs.

364 DANCE ADMINISTRATION AND CURRICULUM DESIGN

3 sem. hrs.

Techniques for the curriculum, development, evaluation and administration of dance in public schools, studios, universities and community agencies.

365 DANCE COMPOSITION II

3 sem. hrs.

Continued development of theoretical concepts of choreography with emphasis on form and group compositions.

366 HISTORY AND PHILOSOPHY OF DANCE I

3 sem. hrs.

History, philosophy, and development of dance as a social and cultural medium from primitive times through the 16th century.

367 HISTORY AND PHILOSOPHY OF DANCE II

3 sem. hrs.

History, philosophy, and development of dance from the 17th century to the present. Approaches, styles, and contributions of leading dance personalities.

368 PRINCIPLES OF DANCE PRODUCTION

3 sem. hrs.

Principles of public relations, publicity, costuming, lighting, and management used in producing dance performances.

369 DANCE PRACTICUM III

3 sem. hrs.

An intensive experience in the design, development, and implementation of a creative project culminating in dance performance. Prerequisites: Choreography-consent of instructor; lighting design - THE 261, 361 or equivalent; costume design - THE 130, 330 or equivalent.

370 RECREATION FOR SPECIAL POPULATIONS

3 sem. hrs.

Material for leadership techniques for conducting recreation for special groups, including mentally and physically handicapped, aged, juvenile delinquents, armed forces, prisons, and hospitals.

371 OUTDOOR RECREATION

3 sem. hrs.

Planning and operational procedures in acquiring, developing, and managing recreation and park area facilities.

372 CAMP LEADERSHIP PRACTICUM WITH PHYSICALLY HANDICAPPED

3 sem. hrs.

Counseling experience in a summer camp for physically handicapped children. Conferences on planning of daily activities, equipment, and general program. Prerequisite: Consent of chairperson of SED and chairperson of HPR. May be repeated.

373 PERSPECTIVES AND TRENDS IN OUTDOOR RECREATION

3 sem. hrs.

Program management principles, outdoor survival techniques, assessment of factors affecting environmental impact and discussion and analysis of environmental issues.

374 OUTDOOR EDUCATION

3 sem. hrs.

Principles and policies underlying school-related programs and materials in outdoor education.

382 SENSORY MOTOR EDUCATION FOR THE MENTALLY HANDICAPPED

3 sem. hrs.

Physical education methods appropriate for students with mentally handicapping conditions, including assessment, program writing, teaching techniques, and evaluation. Includes clinical experiences.

383 ADAPTED PHYSICAL EDUCATION

3 sem. hrs.

Handicapping conditions and methods, materials, and activities for adapted physical education programs in pre-school, elementary, secondary, and self contained schools. Prerequisite: HPR 181 or BSC 181.

384 INTRODUCTION TO ATHLETIC INJURIES

3 sem. hrs.

A practical course. Emphasis upon responsibilities, limitations, qualifications, liabilities, taping and bandaging, identification of basic athletic injuries, prevention and treatment techniques. Prerequisite: HPR 181 or consent of instructor.

385 PHYSICAL DEFECTS-SURVEY AND REHABILITATION

3 sem. hrs.

Identification and treatment of physical defects of handicapped children; special services, equipment, and procedures for school programs. Prerequisite: BSC 381 or HPR 282. Also offered as SED 385. Lecture and laboratory. Includes clinical experiences.

386 PHYSICAL EDUCATION FOR THE PHYSICALLY HANDICAPPED

3 sem. hrs.

Methods for assessing motor and manipulative competencies, designing prescriptive programs, techniques for teaching motor and fitness skills to persons with orthopedic and sensory impairments. Consent of instructor if not HPERD major. Includes clinical experiences.

387 ADVANCED ATHLETIC INJURIES

3 sem. hrs.

Concentrated study of specific athletic injury problems; attention given to nutrition, drugs, conditioning and rehabilitation. Prerequisite: HPR 384.

390 DRUGS IN SOCIETY

3 sem. hrs.

Psychological, social, medical, legal and economic aspects of use, misuse and abuse of substances are explored along with the implications for education. Also offered as HSC 390.

392 VALUES AND HEALTH

3 sem. hrs.

Exploration of the valuing process and its relationship to health and health education. Development of skills and techniques of value clarification for use in health education with clients. Also offered as HSC 392.

394 HEALTH ASPECTS OF AGING

3 sem. hrs.

A study of the characteristics of the aging process and factors influencing adaptation and the quality of living. Prerequisite: SAS 211. Also offered as HSC 394 and HEC 394. Materials charge optional.

395 MEDIA AND MATERIALS IN HEALTH EDUCATION

3 sem. hrs.

Analysis and development of print and non-print materials and their use by health educators. Prerequisite: Nine semester hours in HSC or consent of instructor. Also offered as HSC 395.

396 HEALTH EDUCATION PLANNING AND PROMOTION

2 sem. hrs.

Theory and application of health education program planning and promotion. Prerequisite: Nine semester hours in HSC or consent of instructor. Also offered as HSC 396.

400 INDEPENDENT STUDY

1-4 sem. hrs.

Refer to Index for General Courses.

401 CURRICULUM DEVELOPMENT IN PHYSICAL EDUCATION

3 sem. hrs.

The nature of curriculum in physical education, with emphasis upon approaches for development, use of the discipline of human movement, pertinent content and processes, major concepts and relevant competencies.

402 PHILOSOPHICAL PERSPECTIVES OF HEALTH EDUCATION

3 sem. hrs.

An analysis of meanings of health education and a synthesis of these meanings into a viable philosophy for health professionals. Prerequisites: Graduate standing and a health science background.

403 PROBLEMS IN ADMINISTRATION OF SPORTS

3 sem. hrs.

Critical analysis of the current problems that confront the directors of physical education and athletics in the organization and administration of sports activities with special reference to national, state, and local control.

409 LEGAL ASPECTS OF SPORT AND PHYSICAL EDUCATION**3 sem. hrs.**

Identification of problems, trends, and implications for sport and physical education through a study of statutory law and ruling case law.

414 FACILITIES PLANNING IN HPER**3 sem. hrs.**

The course is designed to provide students with an awareness of the range of facilities that are appropriate for programs in health, physical education, and recreation. Criteria and standards for planning, constructing and utilizing these facilities will be analyzed.

424 SUPERVISION OF PHYSICAL EDUCATION**2-3 sem. hrs.**

Techniques of supervision in elementary and secondary schools; in-service training of the supervisor; relationships with teachers, administrators and community.

441 SEMINAR IN ADMINISTRATION OF SPORT AND PHYSICAL EDUCATION**3 sem. hrs.**

Student participation in discussion, reports and demonstrations to gain fluency in oral and written presentations relative to administration and development in physical education and sport.

442 PHILOSOPHY OF HEALTH, PHYSICAL EDUCATION AND RECREATION**3 sem. hrs.**

An examination of the philosophical bases of HPER in historical perspective and in the American culture with implications for values, purposes, programs, and methodology.

443 PROBLEMS IN HEALTH EDUCATION, PHYSICAL EDUCATION, AND RECREATION**3 sem. hrs.**

Guidance in individual and group solution of selected professional problems in HPER.

445 PRACTICUM IN COLLEGE COACHING**2 sem. hrs.**

A practical coaching experience at the post-secondary level, with related seminar discussions. Prerequisites: Appropriate sport competency, and prior consent of instructor or graduate program director.

446 STATISTICAL APPLICATIONS IN HPER**3 sem. hrs.**

Microcomputer applications in descriptive and inferential statistics as they relate to research, tests, measurements, and evaluation in HPER.

447 EVALUATION IN HPER**3 sem. hrs.**

Methods, procedures and principles utilized in evaluation of the programs, personnel, budgets, facilities and individual performances in Health, Physical Education, and Recreation, with the interpretation and application of the findings from the evaluation process.

448 NON-THESIS RESEARCH AND WRITING**2 sem. hrs.**

Intensive writing experience for the non-thesis student under the supervision of a qualified member of the faculty. Master's thesis students may not enroll. Prerequisite: HPR 497, or consent of instructor.

460 SEMINAR IN DANCE**2 sem. hrs.**

Student participation in lectures, reports, demonstrations, and discussions to gain fluency in oral and written presentation while criticizing or defending concepts related to dance, and dance education; critical evaluation of pertinent research and thesis plans.

469 AESTHETICS FOR THE DANCE**3 sem. hrs.**

Philosophic and aesthetic theories and their application to movement and dance.

470 ORGANIZATIONAL RELATIONSHIPS IN HEALTH EDUCATION**3 sem. hrs.**

Analysis of interorganizational communication and cooperative efforts of local, state, national, and international health education organizations.

471 CURRICULUM DEVELOPMENT AND EVALUATION IN HEALTH EDUCATION**3 sem. hrs.**

Examination of components, processes and products in health curriculum development and evaluation, and the development of skills in their use.

472 CAMPING ADMINISTRATION**3 sem. hrs.**

A comprehensive study of principles and techniques involved in the effective development and management of resident camps.

473 TRENDS AND ISSUES IN LEISURE SERVICES**3 sem. hrs.**

In-depth analysis of selected trends, issues and problems confronting leisure service and recreation practitioners in contemporary settings.

475 ADMINISTRATION OF LEISURE SERVICES**3 sem. hrs.**

A course on contemporary management theory and practice as related to the effective operation of leisure service delivery systems.

481 WORK METABOLISM**3 sem. hrs.**

An investigation of the metabolic changes that occur during exercise stress in physical education and sport activities. Prerequisite: HPR 351, or consent of instructor.

482 ADVANCED BIOMECHANICS OF HUMAN MOVEMENT**3 sem. hrs.**

Emphasis is on problems of human movement from both theoretical and experimental aspects utilizing contemporary methodology. Prerequisite: HPR 352 or equivalent. Materials charge optional.

483 ADULT HANDICAPS AND CORRECTIVE PROGRAMS**2 sem. hrs.**

Analysis of physical disabilities, handicaps and conditions of adults, including relevant rehabilitation techniques; selected screening and evaluation techniques; the administration of adapted, corrective, and therapeutic physical education programs. Prerequisite: Consent of instructor if not HPERD major.

485 ADVANCED SEMINAR IN ATHLETIC TRAINING**3 sem. hrs.**

The advanced study and discussion of specialized topics and contemporary problems related to the field of athletic training. Prerequisite: Consent of instructor.

**486 ADMINISTRATION OF ADAPTED
PHYSICAL EDUCATION PROGRAMS**
1 sem. hr.

The organization and administration of adapted physical education programs in the public schools; including current information relating to implementation of P.L. 94-142.

487 SPORTS MEDICINE: MEDICAL ASPECTS
3 sem. hrs.

A course for advanced study in the medical aspects of sports injuries; the medical specialties and their function in sports medicine. Prerequisites: Open to graduate students enrolled in Athletic Training Concentration and others with consent of coordinator of athletic training programs.

**488 ADVANCED LAB/CLINICAL PRACTICE IN
ATHLETIC TRAINING**
3 sem. hrs.

Advanced laboratory and clinical practice of athletic training, sports medicine techniques, under the supervision of a certified athletic trainer. Prerequisite: Consent of the coordinator of athletic training.

**491 INTERNSHIP IN COLLEGE TEACHING IN
HEALTH, PHYSICAL EDUCATION, AND
RECREATION**
3 sem. hrs.

Credit in this course is given in Curriculum and Instruction. (See Curriculum and Instruction 491).

**492 ADVANCED CONCEPTS IN HEALTH
EDUCATION**
3 sem. hrs.

Examination of emerging concepts of health education related to the technological, psychological, and philosophical advances of society.

**497 INTRODUCTION TO RESEARCH
METHODOLOGY**
3 sem. hrs.

Selection of a research problem, collection of data, types of research, the research report, and use of the library in connection with the research problem. Emphasis on understanding and interpreting frequently used statistical concepts. Provides a background for the preparation of the thesis. Enables the student to become an intelligent consumer of the products of educational research.

498 PROFESSIONAL PRACTICE HPER
1-12 sem. hrs.

Refer to Index for General Courses.

499 MASTER'S THESIS
1-6 sem. hrs.

Refer to Index for General Courses.

500 INDEPENDENT STUDY
1-4 sem. hrs.

A maximum of four hours may be applied toward the doctoral degree. Intensive study in a special area of the advanced student's interest under a qualified member of the faculty. Open only to doctoral students in EAF and C&I who have completed considerable work in a degree program, who are in good academic standing, and who have demonstrated ability to profit from independent study. **A written proposal approved by the faculty member, the student's adviser, and the department chairperson is required prior to registration.**

HEALTH SCIENCES (HSC)

Chairperson: Roger B. Weller. Office: 103 Moulton Hall.
Graduate Faculty: A. Davami, A. Nolte, C. Spencer, R. Weller.

Note: Graduate degrees are not granted in the Department of Health Sciences, but course work is available as supplemental study or as electives.

Courses

390 DRUGS IN SOCIETY
3 sem. hrs.

Psychological, social, medical, legal and economic aspects of use, misuse and abuse of substances will be explored along with the implications for education. Also offered as HPR 390.

392 VALUES AND HEALTH
3 sem. hrs.

Exploration of the valuing process and its relationship to health and health education. Development of skills and techniques of value clarification for use in health education with clients. Also offered as HPR 392.

394 HEALTH ASPECTS OF AGING
3 sem. hrs.

A study of the characteristics of the aging process and factors influencing adaptation and the quality of living. Prerequisite: SAS 211. Offered as HPR 394 or HEC 394. Material charge optional.

**395 MEDIA AND MATERIALS IN HEALTH
EDUCATION**
3 sem. hrs.

Analysis and development of print and non-print materials and their use by health educators. Prerequisite: Nine hours of course work in HSC, or consent of instructor. Also offered as HPR 395.

**396 HEALTH EDUCATION PLANNING AND
PROMOTION**
2 sem. hrs.

Theory and application of health education planning and promotion. Prerequisite: Nine semester hours in HSC, or consent of instructor. Also offered as HPR 396.

HOME ECONOMICS (HEC)

Chairperson: Connie Ley. Office: Turner Hall 144.
Graduate Faculty: C. Batsche, M. Canabal, C. Carr, S. Harshbarger, J. Johnson, S. Kern, C. Ley, J. Memken, N. Nnakwe, K. Smith, A. Stemm, A. Webb-Lupo.

The department offers work leading to the following degrees: M.A., M.S.. University requirements for the Master's degree are listed elsewhere in this catalog.

The Master's degree program provides opportunity for program concentration in Child Development and Family Relationships, Clothing and Textiles, Consumer Services, Food-Nutrition or Dietetics, Home Economics Education, and Housing and Environmental Design. Courses are approved by the Home Economics Graduate Adviser. Each student may choose either: (A) 32 semester hour program which includes a thesis; (B) 32 semester hour program with a comprehensive examination; or (C) 39 semester hour program of course work. The 32 semester

hour program requires 15 semester hours in courses numbered 400 or above. The 39 semester hour program requires 18 semester hours in courses numbered 400 or above. HEC 497 is required in all programs.

A career option leading to general administrative endorsement with emphasis in vocational education is offered in cooperation with the Department of Educational Administration and Foundations through Agriculture, Business Education and Administrative Services, Home Economics, and Industrial Technology departments. Students interested in the vocational emphasis should (A) see department chairperson and (B) submit an Intent to File for Certification form in the Office of Clinical Experiences and Certification Processes. All students who plan to receive certification for the State of Illinois via an approved ISU program must file official forms and follow specific procedures. Certification is not given automatically at the completion of specific course work or degree program.

Courses

301 EVALUATION OF PROGRAMS

2 sem. hrs.

Principles, methods and techniques used to evaluate programs, curricula and personnel in various institutions.

304 CURRICULUM DEVELOPMENT IN HOME ECONOMICS

3 sem. hrs.

Review and evaluation of current curriculum materials. Development of materials related to programs and age level. Individual and group problems.

307 INFANT AND PRESCHOOL CHILD

3 sem. hrs.

Research in the growth and behavior of the young child as related to family and society. Includes clinical experiences. Prerequisites: PSY 111 and HEC 114 or 101. Materials charge optional.

308 ORGANIZATION AND ADMINISTRATION OF EARLY CHILDHOOD PROGRAMS

3 sem. hrs.

Administration of early childhood programs and community services responsible for guidance of young children. Includes clinical experience.

309 COUPLE RELATIONSHIPS

3 sem. hrs.

An interactional approach to the study of intimate male-female pairings: establishing couple relationships and developing effective intimate pairing communications; an overview of marriage enrichment history, programs, practice, theory and research. Prerequisite: HEC 114 or 101. Materials charge optional.

310 FAMILY CRISES

3 sem. hrs.

Cognitive and affective exploration of family crisis definition, the relationship-termination crises of death and divorce, and overview of professional helping resources. Field trips.

311 COMMUNITY NUTRITION

3 sem. hrs.

Nutritional needs of selected populations vulnerable to inadequate diet; emphasis on U.S. programs designed for groups at nutritional risk. Prerequisite: HEC 116 or 102 or 106.

312 DIET THERAPY

3 sem. hrs.

Planning modified diets and studying underlying diseases. Nutritional counseling of individuals and groups. Prerequisites HEC 216.

313 FOOD CUSTOMS

2 sem. hrs.

Influence of food customs of various ethnic groups on American meal patterns. Prerequisite: HEC 213. Materials charge optional.

314 EARLY CHILDHOOD NUTRITION EDUCATION

3 sem. hrs.

Principles of nutrition and current research. Emphasis on the needs of young children. Guidance in implementing a sound nutritional education program. Materials charge optional. Includes clinical experiences.

316 FOOD SCIENCE

3 sem. hrs.

Experimental approach to principles underlying food preparation. Prerequisites: HEC 213, CHE 110 and 112. Materials charge optional.

318 FOOD SERVICE MANAGEMENT

3 sem. hrs.

Management theory and principles applied to commercial foodservice systems. Planning, control systems, decision making, human considerations. Prerequisites: HEC 103, 213 or consent of instructor. Materials charge optional.

319 QUANTITY FOODS

3 sem. hrs.

Application of principles, techniques, standards, required to procure, store and prepare food in quantity for institutional and commercial feeding. Prerequisite: HEC 213 or consent of instructor. Field trips. Materials charge optional.

320 PRESENTATION AND DEMONSTRATION TECHNIQUES

2 sem. hrs.

Techniques and standards for presentations and demonstrations in various areas of home economics. Includes clinical experiences. Materials charge optional.

322 FLAT PATTERN DESIGN

3 sem. hrs.

Making garment patterns by the flat pattern method. Prerequisite: HEC 220 or equivalent. Materials charge optional.

323 ADVANCED TEXTILES

3 sem. hrs.

Developments in the textile field, particularly man-made fibers and their products. Textile testing techniques. Prerequisite: HEC 115 or 225. Lecture and laboratory. Materials charge optional.

324 DRAPING AND DESIGN

3 sem. hrs.

Interpretation of garment designs in fabric by means of the draping procedure. Prerequisite: HEC 115 or 225, 220, or equivalent.

325 TAILORING

3 sem hrs.

Comparative study and construction of suits and coats using recognized techniques that insure professional products. Prerequisites: HEC 220 or consent of instructor. Material charge optional.

326 FITTING AND ALTERATION**3 sem. hrs.**

Investigation and comparison of various methods of fitting and altering garments and patterns to achieve an acceptable effect. Prerequisites: HEC 115 or 226 and 220 or equivalent. Offered even numbered years.

327 CLOTHING AND BEHAVIOR**3 sem. hrs.**

An analysis of factors which influence behavior in respect to clothing selection and use. Emphasis on research. Prerequisite: HEC 115 or 226, SAS 106, PSY 111. Materials charge optional.

328 ECONOMICS OF FASHION**3 sem. hrs.**

A study of fashion as an economic force. Fashion's influence on production, distribution and consumption of textiles and clothing. Prerequisites: HEC 115 or 226, ECO 101.

330 DECISION-MAKING FOR CONSUMERS**3 sem. hrs.**

Survey of consumer problems, trends, and information. Topics include: insurance, housing, credit, life style, consumer protection, leisure, and achieving financial security. Also offered as BEA 330.

331 CONSUMER MATERIALS**3 sem. hrs.**

Application and evaluation of print and non-print consumer materials. Prerequisite: HEC 117 or 103.

333 FAMILY AND CONSUMER PUBLIC POLICY**3 sem. hrs.**

Examination of public and private sector programs serving human needs: role of the home economist in the public policy arena. Prerequisites: HEC 103, 233 or consent of instructor.

338 HISTORY OF FURNISHINGS AND INTERIORS**3 sem. hrs.**

Furnishings and interiors from antiquity to the late nineteenth century. Materials charge optional. Prerequisite: HEC 104 or consent of instructor.

340 APPLIED INTERIOR DESIGN**4 sem. hrs.**

Principles in designing interior environments to meet human needs. Laboratory devoted to development of renderings and presentations for portfolios. Materials charge optional. Lecture and laboratory. Prerequisites: HEC 104, 115, 118 or 225 and 242.

343 CONSUMER HOUSING ALTERNATIVES**3 sem. hrs.**

Facts, concepts, perceptions regarding the housing alternatives confronting consumers seeking housing commensurate with current needs and future demands. Prerequisites: HEC 118 or 244, or consent of instructor. Field trips. Materials charge optional. Offered odd numbered years.

345 ENVIRONMENTAL DESIGN AS A PROFESSION**2 sem. hrs.**

Professional principles and practice of interior design careers, including systems, forms, and logistics of money and materials. Prerequisite: HEC 340. Materials charge optional.

346 ENVIRONMENTAL LIGHTING**2 sem. hrs.**

An analysis of the design of the luminous environment. Emphasis on lighting methods, lighting system elements, and energy conservation. Prerequisite: HEC 118 or 244, or consent of instructor.

347 HUMAN FACTORS IN INTERIOR ENVIRONMENTS**2 sem. hrs.**

Functional and aesthetic aspects of interior environments. Emphasis on interface between man-made environments and humans. Needs of special populations addressed. Prerequisite: HEC 118 or 244, or consent of instructor.

361 FASHION HISTORY**3 sem. hrs.**

Fashion from antiquity through the nineteenth century. With emphasis on apparel of the western world. Prerequisite: HEC 226 or consent of instructor. Materials charge optional.

362 TWENTIETH CENTURY FASHION**3 sem. hrs.**

Twentieth century fashion; the personalities and cultural forces that influence them. Prerequisite: HEC 226 required. HEC 361 recommended. Materials charge optional.

365 DESIGN STUDIO**3 sem. hrs.**

Advanced problem solving in apparel or environmental design. Prerequisite: HEC 340 and ART 352, or HEC 228 and two from HEC 322, 324, 325, 326 or consent of instructor. Materials charge optional.

368 FASHION PROMOTION**3 sem. hrs.**

Apparel merchandising techniques with emphasis on visual merchandising advertising, fashion shows, and related promotional activities. Prerequisites: HEC 226 and ART 103 or consent of instructor. Materials charge optional.

369 FASHION MERCHANDISING**3 sem. hrs.**

Management and operation of apparel retail firms with emphasis on store organization, salesmanship, inventory control, retail buying, and retail mathematics. Prerequisites: HEC 226, MKT 230, MQM 220 or consent of instructor. Materials charge optional. Field trips required.

370 RESIDENTIAL DESIGN STUDIO**4 sem. hrs.**

Analysis of the total residential environment, applying elements and principles to projects. Emphasis on functional uses of form and space. Prerequisites: HEC 218, 340, Art 352. Field trips. Materials charge optional.

375 NON-RESIDENTIAL DESIGN STUDIO**4 sem. hrs.**

Studies of design theory, division space and equipment of non-residential interiors to meet the physiological and psychological requirements of the persons involved. Prerequisite: HEC 370. Materials charge optional.

380 ORGANIZATION AND ADMINISTRATION OF VOCATIONAL COOPERATIVE EDUCATION PROGRAMS**3 sem. hrs.**

Planning and organizing a cooperative program; emphasis on recruitment, selection of training stations, student placement, and operation of cooperative plan. Offered also as AGR 380, BEA 380 or IT 305. Includes clinical experience.

382 COORDINATION TECHNIQUES OF COOPERATIVE VOCATIONAL EDUCATION PROGRAMS
3 sem. hrs.

Coordination techniques needed for high school and post-secondary teacher coordinators in integrating classroom activities with daily employment. Offered also as AGR 382, BEA 382 or IT 306. Includes clinical experiences.

394 HEALTH ASPECTS OF AGING
3 sem. hrs.

A study of the characteristics of the aging process and factors influencing adaptation and the quality of living. Prerequisite: SAS 211, or consent of instructor. Also offered as HSC 394 and HPR 394. Materials charge optional.

400 INDEPENDENT STUDY
1-4 sem. hrs.

See Index for General Courses.

402 SEMINAR IN HOME ECONOMICS
2 sem. hrs.

Each student reviews research and exchanges information, problems, and results by informal lectures, reports, and discussions. May be repeated. Materials charge optional.

408 FAMILY AND CHILD DEVELOPMENT
3 sem. hrs.

Current issues and research regarding the Child and Family. Review of literature, individual projects and problem-solving techniques. Materials charge optional.

409 RECENT TRENDS IN HOME ECONOMICS
2 sem. hrs.

Developments in field as reflected in practices. Review of current professional literature. Materials charge optional. May be repeated after five years.

410 FAMILY HOUSING PROBLEMS
3 sem. hrs.

Current trends in housing. Aesthetic, social, economic, and managerial aspects. Federal housing programs. Materials charge optional.

412 ADVANCED FAMILY RESOURCE MANAGEMENT
3 sem. hrs.

Planning, directing, and coordinating human and non-human resources in the management of the home. Application of principles basic to modern household processes. Materials charge optional.

414 SPECIAL PROBLEMS: CLOTHING
3 sem. hrs.

Individual advanced work on several different problems or a more intensive study of one special phase of clothing. Materials charge optional.

416 ADVANCED PROBLEMS IN FOOD SCIENCE
3 sem. hrs.

Experimental study of foods and food preparation. Materials charge optional.

420 ADVANCED NUTRITION
3 sem. hrs.

Nutrition research applied to improved dietary planning. Materials charge optional.

422 HISTORY OF COSTUME
3 sem. hrs.

Costume through the ages as expression of social, economic, and cultural life of time. Materials charge optional.

424 SELECTED PROBLEMS IN HOME ECONOMICS
1-6 sem. hrs.

Prerequisite: Approval by department chairperson. May be repeated. Materials charge optional.

485 VOCATIONAL DIRECTORSHIP I
3 sem. hrs.

Development of knowledge and competencies in planning and organizing vocational education programs. Prerequisite: Consent of department chairperson or Vocational Administration Career Option Graduate Adviser.

486 VOCATIONAL DIRECTORSHIP II
3 sem. hrs.

Second course in directorship sequence. Leadership strategies for implementing, operating, and evaluating vocational programs in the public sector. Prerequisite: AG, BUS, HEC, or IT 485 and consent of department chairperson or Vocational Administration Career Option Graduate Adviser.

491 INTERNSHIP IN COLLEGE TEACHING IN HOME ECONOMICS
3 sem. hrs.

(See Curriculum and Instruction 491).

497 INTRODUCTION TO RESEARCH METHODOLOGY
3 sem. hrs.

Selection of a research problem, collection and analysis of data, types of research, the research report, and use of library and data processing resources. Enables the student to become an intelligent consumer of the products of home economics research; provides a background for the preparation of a thesis. To be taken during the first 12 hours of graduate work. Students should enroll in two (2) credits of HEC 400 Independent Study during the semester in which they enroll in HEC 497. Offered in the fall semester.

498 PROFESSIONAL PRACTICE: HOME ECONOMICS
3-8 sem. hrs.

Refer to Index for General Courses.

499 MASTER'S THESIS
1-6 sem. hrs.

INDUSTRIAL TECHNOLOGY (IT)

Chairperson: C. Daniel Miller. Office: Turner Hall 211.
Graduate Faculty: E. Anderson, P. Brauchle, R. Budig, H. Campbell, E. Dorner, E. Francis, L. Fryda, G. Gloeckner, J. Liedtke, W. Lockwood, F. Loepp, D. Miller, L. Miller, W. Nelson, C. Pendleton, W. L. Quane, J. Talkington, G. Weede, W. Zook.

Programs Offered

The department offers work leading to the Master of Science degree. University requirements for master's degrees are listed elsewhere in this catalog.

The master's degree program, through advisement, provides opportunities for program emphasis in industrial education, and training.

All courses, including transfer courses, must be listed on the Plan of Study and approved by the graduate coordinator, chairperson, and Dean of the Graduate School. A

student may choose among: (A) 32 semester hour program, including a thesis, (B) 32 semester hour program, plus a comprehensive examination, or (C) 39 semester hour program with a colloquium.

Admission Requirements

All University and Graduate School requirements for admission to a degree program apply (see Index).

Students who have earned a bachelor's degree in Technology Education, Industrial Arts, Industrial Education, Industrial Technology or Safety meet the department's requirement for admission.

Students who do not have a major in these areas will have to complete the equivalent of a minor in Industrial Technology prior to admission. Additional deficiencies will be determined by the graduate coordinator of the department.

Academic Advisement

Students seeking a master's degree in Industrial Technology should meet with the graduate coordinator of the department prior to enrollment in graduate courses. Deficiencies, if any, will be determined and a graduate adviser assigned. The student and adviser will plan the graduate program and submit the Plan of Study required by the Graduate School for the graduate coordinator's and chairperson's approval after the student completes 12 semester hours.

Curriculum Requirements

Students may select one of three options (thesis, comprehensive or 39 semester hours) in completing the M.S. degree. In each of these options, IT majors must complete required core courses (17 hours) consisting of IT 349, 497, 403, 406, 407 and 408. IT 349 may be waived if an equivalent course has been completed or proficiency demonstrated.

Students must also complete advanced technical preparation courses selected from IT 400 (1-6 hours), 404 (1-6 hours), 412 (3-6 hours), 491 (3 hours), 498 (1-6 hours) and 3 to 6 hours of 300 level technical courses. No more than 9 hours may be taken in a combination of IT 400 and 498.

Thesis Option: Students selecting the thesis option will complete the core requirements of 17 hours, 5 to 7 hours of advanced technical preparation, a thesis (4-6 hours) and electives to meet the minimum of 32 semester hours.

Comprehensive Exam Option: Students selecting the comprehensive option will complete the core requirement of 17 hours, 11 hours of advanced technical preparation courses, electives to meet the 32 semester hour requirement and pass a comprehensive written/oral examination.

Thirty-nine Hour Option: Students choosing the 39-hour option will complete the 17 hour core requirement, 12 to 18 hours of advanced technical preparation courses, IT 496 and electives to meet the minimum of 39 semester hours. Students are strongly encouraged to complete 6 hours of electives in another discipline outside the College of Applied Science and Technology

Courses

304 JOB ANALYSIS

3 sem. hrs.

Techniques and procedures for analyzing jobs for efficiency of human talent and enhancement of certain human values.

305 ORGANIZATION AND ADMINISTRATION OF VOCATIONAL COOPERATIVE EDUCATION PROGRAMS

3 sem. hrs.

Planning and organizing a cooperative program; emphasis on recruitment, selection of training stations, student placement, and operation of cooperative plan. Also offered as AGR 380, BEA 380 and HEC 380. Includes clinical experience.

306 COORDINATION TECHNIQUES OF COOPERATIVE VOCATIONAL EDUCATION PROGRAMS

3 sem. hrs.

Coordination techniques needed for high school and post-secondary teacher coordinators in integrating classroom activities with daily employment. Also offered as AGR 382, BEA 382 and HEC 382. Includes clinical experiences.

307 EMPLOYMENT ANALYSIS FOR THE EXCEPTIONAL

3 sem. hrs.

Diagnosis and instruction of exceptional children who are placed in occupational education. Synthesizing employment and education for exceptional children. Material charge optional. Also offered as SED 380.

308 TECHNOLOGY AND CULTURE

3 sem. hrs.

A study of the impact of contemporary technology upon individuals, society, and culture. Prerequisite: IT 208, honor student status, or demonstrated excellence in a related field.

311 INDUSTRIAL OPERATIONS

3 sem. hrs.

A study of industrial principles, practices, and methods used to establish a sequence of operations to produce a product.

312 FACILITIES PLANNING

2 sem. hrs.

Study of Industrial/Manufacturing Facilities planning including space requirements, machine arrangements, flow lines, and environmental features. Prerequisites: MAT 120 or 107 and 108 or 109; 8 hrs in an IT sequence req.

313 STATISTICAL QUALITY CONTROL

2 sem. hrs.

Study of inspection and sampling techniques, statistical process control, machine capability, and control charts used in industry. Prerequisites: MAT 120 or 107 and 108 or 109; 8 hrs in an IT sequence req.

315 COMPUTER-AIDED DESIGN AND MANUFACTURING

3 sem. hrs.

Principles, practices and systems used in computer-aided design and manufacturing. Experience with interactive graphics and automated manufacturing equipment. Prerequisites: IT 216 or 284 or 331.

319 COMPUTER GRAPHICS

3 sem. hrs.

Combination of graphic techniques and computer programming as means of industrial communication applied to solution and interpretation of technological problems.

Materials charge optional. Also offered as COM 319. Prerequisite: IT 210.01, 216, or demonstrate equivalent competencies.

322 BUILDING CODES AND INSPECTIONS **2 sem. hrs.**

Model construction codes and the application and administration of minimum standards for public safety. Prerequisite: IT 211 or 221.

323 CONSTRUCTION COST ANALYSIS **2 sem. hrs.**

Estimating costs in the light-frame construction industry. Prerequisite: IT 211 or 221.

324 MASONRY MATERIALS AND CONSTRUCTION **2 sem. hrs.**

Principles, practices and materials with emphasis on strength, mixtures, techniques and handling procedures. Prerequisites: IT 194 and 221. Materials charge optional.

325 COMPOSITE WOOD PROCESSING TECHNOLOGY **3 sem. hrs.**

Study and practice of manufacturing methods, physical and mechanical properties tests, and industrial applications of solid modified woods, plywood, sandwich composites, particleboard, fiberboard, and flakeboard. Prerequisite: IT 224. Materials charge optional.

326 PRODUCTION WOODWORKING **3 sem. hrs.**

A study of the development of industrial wood production systems, and lab experiences in product engineering, manufacturing engineering, and plant engineering. Prerequisite: IT 224. Materials charge optional. Formerly IT 223.

331 ADVANCED MACHINE TOOL TECHNOLOGY **4 sem. hrs.**

Theory and practice of production machine setups; numerical control programming and operation; and electrical discharge machining (EDM) technology. Prerequisite: IT 233. Materials charge optional.

332 APPLIED PHYSICAL METALLURGY **3 sem. hrs.**

Physical and mechanical properties of metals, testing properties, crystalline structure, metallurgical examination, constitution of alloys, heat treatment, industrial applications. Prerequisite: IT 192. Materials charge optional.

334 ADVANCED AUTOMATION SYSTEMS IN MANUFACTURING **4 sem. hrs.**

Principles, techniques and applications of numerical control programming and automation methods to materials handling, assembly, inspection/testing, and material processing. Prerequisites: Computer programming course and IT 224, or 233, or 285. Materials charge optional.

342 COMMUNICATIONS ELECTRONICS **4 sem. hrs.**

Operation and characteristics of electronic circuits and devices employed in communication systems. Prerequisite: IT 242, materials charge optional.

344 INSTRUMENTATION ELECTRONICS **4 sem. hrs.**

Operation, characteristics, calibration and maintenance of electronic circuits and devices employed in selected electronic instruments. Prerequisite: IT 242. Materials charge optional.

345 INDUSTRIAL PROCESS CONTROL **3 sem. hrs.**

Study of reprogrammable, automated control systems for industrial production processes. Prerequisites: IT 244 and 284. Materials charge optional.

346 MICROPROCESSOR SYSTEMS **4 sem. hrs.**

Theory and application of the internal workings of microprocessors and microcomputers and special application microprocessors. Prerequisites: ACS 155.02 and IT 244. Materials charge optional.

349 TECHNICAL WRITING II **3 sem. hrs.**

Instruction and practice editing, proposals, and analytical writing; attention given to style manuals, research writing, and (as needed) publication. Prerequisite: ENG 249 or graduate standing. Also offered as ENG 349.

351 IMAGE CARRIERS AND IMAGE TRANSFER **3 sem. hrs.**

Theory and laboratory practice in negative assembly, plate making, proofing and press systems. Prerequisite: IT 250 or demonstrated equivalent competencies. Materials charge optional.

352 CHARACTER GENERATION **3 sem. hrs.**

Theory, laboratory practice on computerized photographic, digital, and laser imagesetting equipment. Input and editing concepts are included. Prerequisite: IT 250 or demonstrated equivalent competencies. Materials charge optional.

353 COLOR SEPARATION **3 sem. hrs.**

Theory of color, modern color separation methods, including laser scanning; fake color; transmission and reflection copy; color correction; additive and subtractive color. Prerequisite: IT 253 or demonstrated equivalent competencies. Materials charge optional.

354 THE GRAPHIC ARTS INDUSTRY **3 sem. hrs.**

Graphic arts industrial organization of human resources, physical assets, and money; efficient production of graphic communications products. Prerequisite: IT 250 or demonstrated equivalent competencies. Materials charge optional. Field trips.

359 QUANTITATIVE OCCUPATIONAL HEALTH **3 sem. hrs.**

Application of techniques for measurement, evaluation and control of chemical and physical stresses in occupational environments. Prerequisite: IT 248 or consent of instructor. Materials charge optional. Also listed as HSC 359.

361 MOTOR VEHICLE DIAGNOSIS **3 sem. hrs.**

Motor vehicle systems diagnosis; emphasis on electrical, fuel and emissions systems. Prerequisite: IT 262. Materials charge optional.

365 SOLAR HEATING AND COOLING TECHNOLOGY **3 sem. hrs.**

Principles, theory, and laboratory practice in active solar systems for residential space and water conditioning. Prerequisite: IT 191 or IT 211 or 221, or consent of instructor. Materials charge optional.

367 PASSIVE SOLAR TECHNOLOGY**4 sem. hrs.**

Principles, theory and laboratory practice in passive solar applications. Prerequisite: IT 191 or 211 or 221, or consent of instructor. Materials charge optional.

368 ENERGY MANAGEMENT**3 sem. hrs.**

Principles, techniques, equipment efficiency analysis, optimization, demand, usage, waste and loss in energy control. Prerequisites: IT 240; IT 241, 263, 311, 365 and 367 recommended.

370 INDUSTRIAL ACCIDENT PREVENTION**3 sem. hrs.**

Principles, responsibilities, and techniques for developing, organizing, implementing and administering an industrial safety program. Prerequisites: PHY 105; MAT 120 or 107 and 108, or 109, or 110 or 145; and IT 171 or 271.

371 ALCOHOL AND ACCIDENT PHENOMENON**3 sem. hrs.**

Effects of alcohol on accident causation. Psychological, physiological, pharmacological actions of alcohol in view of medical, sociological, religious and economic aspects. Prerequisite: IT 171 recommended.

372 ACCIDENT INVESTIGATION, RECORDS, AND EVALUATION**3 sem. hrs.**

Theory and function of accident investigation, reporting and analysis systems. Form design and utilization and cost evaluation procedures. Prerequisites: MAT 120 or 107 and 108, 109 or 110 or 145; and IT 171 or 271.

373 AGRICULTURAL ACCIDENT PREVENTION**3 sem. hrs.**

Major problems of accident causation and prevention applicable to agriculture and the need for farm safety education. Also offered as AGR 345. Materials charge optional.

374 METHODS AND MATERIALS OF TEACHING DRIVER EDUCATION**4 sem. hrs.**

Laboratory experience in teaching beginning drivers using driving simulation and dual-control on the street, organization and administration of Traffic Safety programs. Prerequisites: Valid driver's license. IT 172; IT 273 recommended. Content of IT 172 is used to teach beginning drivers in the driving simulator and on-street. Materials charge optional.

376 MOTORCYCLE EDUCATION**3 sem. hrs.**

Administration, organization, evaluation, and instruction of motorcycle safety programs including experience in teaching beginning motorcycle operators, utilizing classroom and on-cycle instruction. Prerequisites: IT 176, 374, or consent of instructor, demonstrated competency as a motorcycle operator, valid driver's license with motorcycle endorsement; laboratory arranged.

378 DISASTER PREPAREDNESS**3 sem. hrs.**

Organizing, directing, coordinating disaster services in schools, industry and local government. Includes T.B.A. 48 hr. disaster exercise. Materials charge optional.

379 CURRICULUM DEVELOPMENT IN DRIVER EDUCATION**3 sem. hrs.**

Behavioral-oriented curriculum applicable to driver education. Behavioral objectives, learning activities, measurement of student performance peculiar to driver education. Prerequisite: IT 172. Content of IT 172 is used as students teach beginning drivers in the classroom. IT 273 or 374 recommended. Materials charge optional.

380 FIRE PROTECTION AND PREVENTION**4 sem. hrs.**

Measures related to safeguarding human life and preservation of property in prevention, detection and extinguishing of fires. Prerequisite: IT 171 or 271; MAT 120 or 107 and 108, or 109 or 110 or 145; and CHE 110 and 112. Materials charge optional. Field Trips.

381 OCCUPATIONAL SAFETY AND HEALTH ACT**3 sem. hrs.**

Interpretation of the provisions of the Occupational Safety and Health Act. The regulations, standards and reporting requirements issued pursuant to it. Prerequisites: IT 171 or 271; MAT 120 or 107 and 108, or 109 or 110 or 145; and CHE 110 and 112. Materials charge optional.

382 SAFETY PERFORMANCE CONTROL**3 sem. hrs.**

Development of specialized knowledge and skills in problem-solving, evaluation and implementation of Occupational Safety programs. Prerequisite: IT 370.

383 INDUSTRIAL COMPUTER INTERFACING**3 sem. hrs.**

Standardized communications hardware and protocols. Identification of existing standards and hardware and evaluation of specific interfacing needs. Prerequisite: IT 284 or ACS 255.

384 PLASTIC MOLDING PROCESSES**4 sem. hrs.**

Advanced theory and practice related to plastics molding, process control, molds and dies, and auxiliary equipment. Prerequisite: IT 285. Materials charge optional.

385 REINFORCED PLASTICS**4 sem. hrs.**

Advanced theory practical application of fiberglass, plastic, resins, other materials in hand layup, spray up, filament winding and other common industrial techniques. Prerequisite: IT 285. Materials charge optional.

387 FORMING, EXPANDING AND FABRICATING PLASTICS**4 sem. hrs.**

Advanced study of solid and cellular plastics used for product development involving thermo-forming, foam molding, assembling, machining and decorating. Prerequisites: IT 224, 233, and 285. Materials charge optional.

388 PLASTICS PRODUCT DESIGN**4 sem. hrs.**

Designing plastic tooling, fixtures, and industrial and consumer products. Prerequisite: Eight hours from IT 285, 384, 385, or 387. Materials charge optional.

390 GRAPHIC COMMUNICATIONS SYSTEMS DEVELOPMENT**4 sem. hrs.**

Development of graphic communications systems using advanced principles and techniques in the generation, storage, transmission and reproduction of graphic images. Prerequisites: IT 311 and 9 sem. hrs. of advanced technical

courses in one of the following specialties: Industrial Computer Systems, Design/Drafting, Graphic Arts, or consent of instructor.

391 ENERGY AND POWER SYSTEMS DEVELOPMENT
4 sem. hrs.

Team approach to designing and integrating new energy and power systems. Prerequisites: IT 311 and 9 sem. hrs. of advanced technical courses in one of the following specialties: Automotive Technology, Energy Systems Technology, Electronics Technology, Process Control Technology; or consent of instructor.

392 INDUSTRIAL PRODUCTION
4 sem. hrs.

Industrial Production systems including product, manufacturing, and plant engineering. Prerequisites: IT 311 and 4 sem. hrs of advanced technical courses in one of the following specialties: Wood, Metal or Plastics Technology and senior standing; or consent of instructor. Materials charge optional.

394 CARPENTRY CONSTRUCTION
4 sem. hrs.

Theory, materials, and practices of the building construction industry. Practical experience through on-site activities including carpentry and related trades. Students are responsible for transportation to construction site.

400 INDEPENDENT STUDY
1-4 sem. hrs.

Department recommends 3 sem. hrs.

A maximum of six hours may be applied toward a master's degree. Intensive research study in an area of student's interest under a qualified member of the faculty. Each individual investigation is to culminate in a comprehensive written report and/or examination. Open only to graduate students who have completed considerable work in a degree program, who are in good standing, and who have demonstrated ability to profit from independent study. A written proposal approved by the faculty member, the student's adviser and the department chairperson is required prior to registration. May be repeated for a total of six hours. Prerequisites: IT 349 and IT 497.

401 HISTORY AND PHILOSOPHY OF INDUSTRIAL EDUCATION
3 sem. hrs.

Underlying movements and philosophies which have influenced the development of industrial education. Materials charge optional.

403 SEMINAR IN INDUSTRIAL TECHNOLOGY
2 sem. hrs.

A Seminar consists of advanced students meeting regularly under the guidance of a faculty member in which each conducts research and exchanges information, problems and results through informal lectures, reports and discussions. May be repeated for a total of six hours. Materials charge optional. Prerequisites: IT 349 and 497.

404 SPECIAL PROJECTS IN INDUSTRIAL TECHNOLOGY
1-3 sem. hrs.

Investigation of selected areas of industrial technology or accident prevention which may include laboratory work. Each individual investigation is to include a project and a comprehensive written report and/or examination. A written proposal approved by the faculty member, the student's adviser and the department chairperson is required prior to registration. May be repeated to total of six hours. Materials charge optional. Prerequisites: IT 349 and 497.

406 CURRICULUM DEVELOPMENT FOR INDUSTRIAL PROGRAMS
3 sem. hrs.

Study and applications of the theories and methods used in the development of contemporary industrial training and industrial education curricula.

407 PROGRAM DEVELOPMENT IN INDUSTRIAL TRAINING
3 sem. hrs.

Provides competencies required for identifying training objectives and implementing industrial training programs utilizing effective contemporary instructional and delivery methods. Prerequisite: IT 406.

408 EVALUATION OF INDUSTRIAL TRAINING PROGRAMS
3 sem. hrs.

Provides competencies required for analyzing and evaluating industrial training workshops and programs by conducting process and product evaluations. Prerequisite: IT 406.

410 FOUNDATION & DEVELOPMENT OF INDUSTRIAL TECHNOLOGY
3 sem. hrs.

A study of technical developments, their contribution in the evolution of major technological systems, and their impact upon industry and society.

412 TECHNOLOGY UPDATE
3 sem. hrs.

Analysis of major new technological advances that are currently being introduced and developed in industry. May be repeated if content is different for a maximum of 6 hours. Prerequisites: IT 349, 497 and completion of a three-course technical concentration in Industrial Technology. Materials charge optional.

470 CONCEPTUAL MODELS OF ACCIDENT PREVENTION
4 sem. hrs.

Man/machine relations: factors which influence or impair machine-human functions resulting in systems failure. Materials charge optional.

485 VOCATIONAL DIRECTORSHIP I
3 sem. hrs.

Development of knowledge and competencies in planning and organizing vocational education programs. Prerequisite: Consent of department chairperson or Vocational Administration Career Option Graduate Adviser. Also offered as AGR, BEA and HEC 485.

486 VOCATIONAL DIRECTORSHIP II
3 sem. hrs.

Second course in directorship sequence. Leadership strategies for implementing, operating, and evaluating vocational programs in the public sector. Prerequisites: AGR, BEA, HEC, or IT 485 and consent of department chairperson or Vocational Administration Career Option Graduate Adviser. Also offered as AGR, BEA and HEC 486.

491 INTERNSHIP IN COLLEGE TEACHING IN INDUSTRIAL EDUCATION**3 sem. hrs.**

(See Curriculum and Instruction 491).

496 COLLOQUIUM IN INDUSTRIAL TECHNOLOGY**1 sem. hr.**

An examination of major trends, issues, and policies on industrial technology through presentations by students and practitioners. Prerequisites: IT 349, 497, 400 or 404, and concurrent enrollment in 403 during last six semester hours.

497 INTRODUCTION TO RESEARCH METHODOLOGY**3 sem. hrs.**

Selection of a research problem, collection of data, types of research, the research report and use of the library in

connection with the research problem. Emphasis on understanding and interpreting frequently used statistical concepts. Provides a background for the preparation of the thesis.

498 PROFESSIONAL PRACTICE IN INDUSTRIAL TECHNOLOGY OR SAFETY**I-8 sem hrs**

Refer to Index for General Courses. Materials charge optional.

499 MASTER'S THESIS**I-6 sem. hrs.**

Photo by Pattaraboon Pichayapaiboon

COLLEGE OF ARTS AND SCIENCES

Dean: Virginia Owen, 141 Stevenson Hall

The primary purpose of the College of Arts and Sciences is to provide a broadly based educational program in the liberal arts and sciences. The College includes the Departments of Biological Sciences, Chemistry, Communication, Economics, English, Foreign Languages, Geography-Geology, History, Mathematics, Philosophy, Physics, Political Science, Psychology, Sociology-Anthropology-Social Work, and Speech Pathology-Audiology. The College offers the core of the University Studies program required of all undergraduates, a wide range of academic major and minor programs for meeting baccalaureate degree requirements, master's programs in most disciplines, and doctoral programs in Biological Sciences, Economics, English, History, and Mathematics. Course offerings span the humanities, social and behavioral sciences, mathematics, and natural sciences.

BIOLOGICAL SCIENCES (BSC)

Chairperson: George W. Kidder III. Office: Felmley Hall 206.

Graduate Faculty: R. Anderson, J. Armstrong, D. Birkenholz, V. Borowicz, D. Borst, H. Brockman, L. Brown, J. Cain, H. Cheung, T. Chuang, G. Collier, J. Cralley, J. Frehn, H. Huizinga, D. Jensen, S. Juliano, A. Katz, G. Kidder, A. Liberta, L. Lucher, D. McCracken, M. Miller, M. Nadakavukaren, R. Preston, W. Riddle, C. Thompson, J. Tone, D. Weber, B. Wilkinson.

Biology-Chemistry Joint Appointments: M. Jones, A. Richardson, J. Tsang, B. Wilkinson.

The Department offers work leading to the M.S. and Ph.D. degrees. University requirements for these degrees are listed elsewhere in this catalog. Specific departmental requirements are available from the graduate adviser.

Master's degree students may choose one of three options: (1) research-thesis option (32 semester hours); (2) comprehensive option (32 semester hours); and (3) 39-hour option. Course work for each of the options will be determined by the Department and will include BSC 420-Seminar (2 semester hours for research-thesis and comprehensive option students; 3 semester hours for 39-hour option students). Master's degree students in the comprehensive and 39-hour options are also required to take 2 semester hours of BSC 400-Independent Study.

Students working toward the Ph.D. degree in Biological Sciences may include a concentration of studies in the following areas: botany, ecology, genetics, microbiology, physiology, or zoology. Course work will include BSC 420-Seminar (4 semester hours).

Ph.D. Language Requirements

General language requirements of the Graduate School apply. With the approval of the Departmental Graduate Studies Committee, the chairperson of the Department may permit the substitution of PSY 341 and 441 or MAT 350 and 351 for one of the two foreign language require-

ments. The student is required to earn a grade of A or B in both of the courses in the sequence selected.

Courses

300 READINGS IN BIOLOGICAL SCIENCES

1 sem. hr.

Reading and discussion of classical and modern biological literature.

304 SEMINAR IN BIOLOGY

1 sem. hr.

Oral and written reports on current topics in biology.

305 SPECIAL PROBLEMS IN BIOLOGY

1-3 sem. hrs.

Independent research in biology. Projects must be approved by the supervising faculty member and department chairperson prior to registration. May be repeated.

306 REGIONAL AND AREA STUDIES

1-9 sem. hrs.

Field studies of organisms and their environments. Prerequisite: Consent of instructor.

307 METHODS IN THE TEACHING OF BIOLOGY

2 or 3 sem. hrs.; (see Biology teacher education adviser.)

Strategies, curricula, and materials applicable to teaching secondary school science. 35 hrs clinical experiences included. Prerequisite: C&I 200 or equivalent, or concurrent registration. Not for graduate credit for biology students.

318 HISTOLOGICAL TECHNIQUES FOR ZOOLOGISTS AND BOTANISTS

2 sem. hrs.

Preparation of microscope slides, special techniques for whole mounts, plastic embedding, plastic injections, and nerve preparations. Lecture and laboratory.

320 PLANT PATHOLOGY

4 sem. hrs.

Morphology, life histories, host-parasite relationships, and control measures for fungal, bacterial, and viral pathogens. Lecture and laboratory. Prerequisite: BSC 192.

321 MOLECULAR AND DEVELOPMENTAL GENETICS

4 sem. hrs.

Organization of the genome; structure of chromatin and chromosomes; genetic regulation of development; molecular bases of DNA functions. Lecture and laboratory. Prerequisites: BSC 219 and 260, or consent of instructor.

326 PLANT PHYSIOLOGY

4 sem. hrs.

Plant structure and function: photosynthesis, translocation, growth, and development. Laboratory emphasis on independent experimentation. Lecture and laboratory. Prerequisite: BSC 216.

329 HUMAN GENETICS

3 sem. hrs.

Detection, expression, transmission, and molecular manipulation of human traits; emphasis on medical genetics. Lecture. Prerequisite: BSC 219.

334 INTRODUCTORY MYCOLOGY**4 sem. hrs.**

Morphology, taxonomy, and evolution of fungi. Lecture and laboratory. Prerequisite: BSC 192.

361 MICROBIAL PATHOGENS**4 sem. hrs.**

Pathogenesis, identification, cultivation and classification of bacteria, viruses, fungi and animal parasites associated with diseases of man. Lecture and laboratory. Prerequisite: BSC 260.

365 PHYCOLOGY**4 sem. hrs.**

Morphology, taxonomy, physiology and ecology of the algae. Lecture and laboratory. Prerequisite: BSC 192.

366 INDUSTRIAL MICROBIOLOGY**3 sem. hrs.**

Application of microorganisms as biological machines for industrial processes. Emphasis on biotechnological transformations resulting from genetic engineering. Prerequisite: BSC 160 or 260.

367 IMMUNOLOGY**4 sem. hrs.**

Molecular, cellular, transplantation, and tumor immunology; antimicrobial immunity; immunochemistry. Lecture and laboratory. Prerequisites: BSC 260, or consent of instructor.

368 VIROLOGY**4 sem. hrs.**

Bacterial, avian, insect, plant and mammalian viruses and their involvement in disease and cancer. Viral diagnostics. Lecture and laboratory. Prerequisites: BSC 219 and 260.

380 HISTOLOGY**4 sem. hrs.**

Microscopic anatomy of cells, tissues, and organs of vertebrates. Lecture and laboratory. Prerequisite: BSC 194.

381 ANATOMY OF PHYSICAL DISABILITIES**4 sem. hrs.**

Musculo-skeletal and nervous systems emphasized. Prerequisite: BSC 183 or HPR 182. Lecture and laboratory. Not for credit if had BSC 386 or 387.

382 THE EYE - A LABORATORY AND CLINICAL STUDY**3 sem. hrs.**

Anatomy and physiology of the eye. Clinical demonstrations on the detection and care of eye disorders. Lecture and laboratory.

383 PARASITOLOGY**4 sem. hrs.**

Host-parasite relationships, life histories, and morphology of arthropod, helminth, and protozoan parasites of animals. Lecture and laboratory. Prerequisite: BSC 194.

386 GROSS ANATOMY**4 sem. hrs.**

Human body exclusive of head and neck. Lecture and laboratory. Prerequisite: BSC 183 or 194 or HPR 182. Not for credit if had BSC 381.

387 GROSS ANATOMY**4 sem. hrs.**

Human head, neck, and neuroanatomy. Lecture and laboratory. Prerequisite: BSC 183 or 194 or HPR 182. Not for credit if had BSC 381.

390 EVOLUTION**3 sem. hrs.**

Origin of life, genetic code, mutation, selection, genetic drift, and speciation. Lecture. Prerequisite: BSC 219, or consent of instructor.

391 INSECT MORPHOLOGY**4 sem. hrs.**

Structure and evolution of insect organ systems. Lecture and laboratory. Prerequisite: BSC 194.

392 EMBRYOLOGY**4 sem. hrs.**

Comparative embryology of the vertebrates with emphasis on avian and mammalian embryos. Lecture and laboratory.

394 PROTOZOOLOGY**4 sem. hrs.**

Morphology, physiology, reproduction, ecology and taxonomy of free-living and parasitic protozoa. Lecture and laboratory. Prerequisite: BSC 194.

395 BIOLOGY OF THE LOWER VERTEBRATES**4 sem. hrs.**

Fish, amphibians, and reptiles; behavior, ecology, evolution, systematics, zoogeography, reproduction, and adaptive significance of morphology. Lecture and laboratory. Prerequisite: BSC 194.

396 BIOLOGY OF THE HIGHER VERTEBRATES**4 sem. hrs.**

Birds and mammals; behavior, ecology, evolution, systematics, and adaptive significance of morphology. Lecture, laboratory, and field trips. Prerequisite: BSC 194.

400 INDEPENDENT STUDY**1-4 sem. hrs.**

See General Course Offerings.

402 LIMNOLOGY**4 sem. hrs.**

Ecology of lakes and streams. Interactions of biological, chemical, and physical factors in freshwater habitats. Lecture and laboratory. Prerequisite: BSC 201, or consent of instructor.

403 PLANT ECOLOGY**4 sem. hrs.**

Community ecology, diversity, niche metrics, ordination, gradient analysis, succession, sampling techniques, pollination biology, and allelopathy. Lecture and laboratory. Prerequisite: BSC 201.

404 POPULATION ECOLOGY**4 sem. hrs.**

Population regulation, competition, predator-prey relations, and evolution of life-history characteristics. Lecture and laboratory. Prerequisite: BSC 201.

405 COMMUNITY ECOLOGY**4 sem. hrs.**

Diversity and stability of natural communities, niche theory, resource partitioning and species packing, coevolution of plants and animals. Lecture and laboratory. Prerequisite: BSC 201.

410 BIOLOGICAL SCANNING ELECTRON MICROSCOPY**2 sem. hrs.**

Electron optics, beam-specimen interaction, image characteristics, specimen preparation techniques. Lecture and laboratory. Prerequisite: Consent of instructor.

416 CELLULAR PHYSIOLOGY**5 sem. hrs.**

Molecular and biophysical bases of cellular function including cell structure, origin of life, enzymes, metabolism, energetics, membrane structure, and active transport. Lecture and laboratory. Prerequisite: Consent of instructor.

417 CYTOLOGY**4 sem. hrs.**

Recent developments and methodologies concerning ultrastructural organization of cells. Structural-functional aspects, interactions, genetic material, and origin of organelles and the nucleus. Lecture and laboratory.

418 ELECTRON MICROSCOPY**4 sem. hrs.**

Theory and application of biological specimen preparation, ultramicrotomy, photography, and electron optics. Lecture and laboratory. Prerequisite: Consent of instructor.

419 MOLECULAR BIOLOGY OF THE GENE**4 sem. hrs.**

The gene as a unit of structure, replication, function, mutation, recombination, and regulation. Lecture. Prerequisites: BSC 219 and 260, or consent of instructor.

420 GRADUATE SEMINAR IN BIOLOGY**1 sem. hr.**

Topics in various fields of biology. May be repeated for credit.

421 CYTOGENETICS**4 sem. hrs.**

Intensive consideration of meiosis and mitosis. Nature and consequences of altered chromosomal structures and numbers and their employment in genetic engineering. Lecture and laboratory. Prerequisite: BSC 219.

428 ENZYMOLOGY**3 sem. hrs.**

Mechanism of action, isolation and characterization, and kinetics of enzymes. Lecture and laboratory.

433 PLANT ANATOMY AND HISTOLOGY**3 sem. hrs.**

Origin, development, and structure of tissues in vascular plants. Lecture and laboratory. Prerequisite: Consent of instructor.

450 ADVANCED STUDIES IN SPECIALIZED FIELDS**1-4 sem. hrs.**

Current advances in specialized fields of the biological sciences. May be repeated for credit in different fields. Prerequisite: Consent of instructor.

464 ADVANCED MYCOLOGY**3 sem. hrs.**

Isolation, culturing, physiology, and ultrastructure of fungi. Lecture and laboratory. Prerequisite: BSC 334 or consent of instructor.

465 ADVANCED PARASITOLOGY**3 sem. hrs.**

Immunobiology and disease ecology of selected helminth and protozoan parasites in vertebrate and invertebrate hosts. Lecture and laboratory. Prerequisite: BSC 383, or consent of instructor.

466 MICROBIAL PHYSIOLOGY**3 sem. hrs.**

Molecular and cellular aspects of microorganisms: growth metabolism and its control, membrane and cell envelope

structure and function, transport, chemotaxis, antibiotic action, adaptations to extreme environments. Lecture. Prerequisites: BSC 260 and CHE 242 or 342.

467 MICROBIAL GENETICS**4 sem. hrs.**

Inheritance and variation in bacteria and their viruses; recombination, regulation, gene transfer, and other genetic phenomena. Emphasis on molecular basis. Lecture and laboratory. Prerequisites: BSC 260 and 219.

482 MAMMALIAN PHYSIOLOGY**4 sem. hrs.**

Muscular, nervous, and circulatory organ systems. Lecture and laboratory. Prerequisites: Courses in vertebrate anatomy and organic chemistry or consent of instructor.

483 MAMMALIAN PHYSIOLOGY**4 sem. hrs.**

Respiratory, excretory, digestive, and reproductive systems. Lecture and laboratory. Prerequisite: BSC 482, or consent of instructor.

484 HUMAN DEVELOPMENT AND BEHAVIOR**3 sem. hrs.**

Human developmental physiology, biochemistry, genetics, embryology, and endocrinology. Lecture.

485 ENDOCRINOLOGY**3 sem. hrs.**

Hormonal systems in vertebrates and invertebrates. Lecture. Prerequisite: Consent of instructor.

486 ETHOLOGY**4 sem. hrs.**

Behavior of animals under natural conditions. Lecture and laboratory. Prerequisite: BSC 199, or consent of instructor.

488 SYSTEMATIC BIOLOGY**2 sem. hrs.**

Kinds of species; higher categories; phenetic, evolutionary, and cladistic classification; codes of nomenclature. Lecture.

490 BIOSTATISTICS**3 sem. hrs.**

Statistical techniques encountered in biological research with emphasis on proper use and interpretation of analyses. Lecture.

491 INTERNSHIP IN COLLEGE TEACHING IN BIOLOGICAL SCIENCES**3 sem. hrs.**

Credit for the course is given in Curriculum and Instruction (see C&I 491). Prerequisite: Consent of department chairperson.

495 COMPARATIVE ANIMAL PHYSIOLOGY**4 sem. hrs.**

Comparative physiology of organ systems with emphasis on invertebrates. Lecture and laboratory. Prerequisites: BSC 292, CHE 232, or consent of instructor.

499 MASTER'S THESIS**1-6 sem. hrs.****599 DISSERTATION RESEARCH (Ph.D)**
Variable credit

BOTANY (See Biological Sciences)

CHEMISTRY (CHE)

Chairperson: Michael E. Kurz. Office: Felmley Hall of Science 305.

Graduate Faculty: R. Bunting, G. Clark, J. Hansen, J. House, R. Hunt, T. Ichniowski, M. Jones M. Kurz, T. Lash, R. Reiter, A. Richardson, S. Shulman, G. Stevenson, J. Tsang, J. Webb, D. West.

Master's Degree in Chemistry

The department offers a single program involving a thesis based on original research in chemistry for the M.S. degree. In addition, a core program of courses prescribed by the department is required.

Courses

The following courses are not applicable to an advanced degree in chemistry: 301, 302, 360, 361, 362, 363, 398.

315 ANALYTICAL CHEMISTRY

3 sem. hrs.

Emphasis on modern instrumental methods of chemical analysis including electroanalytical, optical, and chromatographic methods. Prerequisite: CHE 362, or concurrent registration. Lecture and laboratory. Materials and locker charge optional.

323 QUALITATIVE ORGANIC ANALYSIS

3 sem. hrs.

Identification of organic compounds using both chemical and spectrometric methods of analysis. Prerequisite: CHE 233. Lecture and laboratory. Materials and locker charge optional.

342 GENERAL BIOCHEMISTRY I

3 sem. hrs.

Survey of the chemical and physical properties of amino acids, carbohydrates, lipids and nucleic acids, and structure and function of proteins, including enzyme kinetics. Prerequisite: CHE 232, or one year of organic chemistry. Not for credit if had CHE 242.

343 BIOCHEMISTRY LABORATORY

3 sem. hrs.

Application of biochemical principles and methods discussed in companion course, CHE 342. Prerequisite: CHE 342, or concurrent registration, or CHE 242. Lecture and laboratory. Materials and locker charge optional.

344 GENERAL BIOCHEMISTRY II

3 sem. hrs.

Survey of important aspects of intermediary metabolism, metabolic regulation, membrane transport, and bioenergetics. Topics will include hormonal controls and immunological response. Prerequisite: CHE 342.

350 INORGANIC CHEMISTRY

3 sem. hrs.

Survey of modern inorganic chemistry including structure of inorganic compounds, coordination chemistry, non-aqueous solvents, and selected inorganic reactions. Prerequisite: CHE 362.

380 TOPICS IN CONTEMPORARY CHEMISTRY

1-3 sem. hrs.

New concepts and recent developments in the fields of organic, inorganic, analytical, physical, and biochemistry. May be repeated.

410 ADVANCED ANALYTICAL METHODS

3 sem. hrs.

Advanced study of selected areas of chemical analysis with special emphasis given to fundamental principles and applications to related disciplines. Prerequisite: CHE 315.

412 TOPICS IN ANALYTICAL CHEMISTRY

1-3 sem. hrs.

Advanced study in selected areas of modern analytical chemistry. Course may be repeated for credit. Prerequisite: CHE 315.

420 ADVANCED ORGANIC CHEMISTRY

3 sem. hrs.

An advanced study of organic chemistry with emphasis on stereoisomerism, conformational analysis, resonance, synthesis, elucidation of structure, heterocyclic and natural products chemistry. Prerequisite: CHE 232 or equivalent.

422 MECHANISMS IN ORGANIC CHEMISTRY

3 sem. hrs.

A critical examination of nucleophilic, electrophilic, and free radical reaction mechanisms including the study of the stability and reactivity of carbanions, carbonium ions and carbenes. Prerequisites: CHE 232 and credit or registration in 360.

424 TOPICS IN ORGANIC CHEMISTRY

1-3 sem. hrs.

Lectures in selected topics of modern organic chemistry. Course may be repeated for credit. Prerequisite: CHE 232 or equivalent.

440 TOPICS IN BIOCHEMISTRY

1-3 sem. hrs.

Advanced study in selected areas of biochemistry. May be repeated for credit in consecutive semesters as different topics are introduced. Prerequisite: One year of biochemistry.

450 ADVANCED INORGANIC CHEMISTRY

3 sem. hrs.

Interpretation of contemporary theories and their application to selected areas of molecular structure and reaction dynamics in inorganic systems. Prerequisite: CHE 350.

452 PHYSICAL INORGANIC CHEMISTRY

3 sem. hrs.

Study of theoretical factors related to the properties of matter, including symmetry elements, group theory, and the application of various instrumental techniques to the study of the structure of inorganic compounds. Prerequisite: CHE 350.

454 TOPICS IN INORGANIC CHEMISTRY

1-3 sem. hrs.

Advanced study in selected areas of modern inorganic chemistry. Course may be repeated for credit. Prerequisite: CHE 350.

460 QUANTUM CHEMISTRY

3 sem. hrs.

An introduction to the methods of obtaining exact and approximate solutions to the Schrodinger equation, and the use of these solutions in the description of atomic and molecular systems. Prerequisites: CHE 362 and MAT 175. MAT 340 is also recommended.

462 INTRODUCTION TO STATISTICAL THERMODYNAMICS**3 sem. hrs.**

An introduction to the methods and theorems of statistical mechanics, its relationship to chemical thermodynamics, and application to molecular models of chemical interest. Prerequisite: CHE 362.

466 TOPICS IN PHYSICAL CHEMISTRY**1-3 sem. hrs.**

Advanced study in selected areas of modern physical chemistry. Course may be repeated for credit. Prerequisite: CHE 362.

490 RESEARCH IN CHEMISTRY**Variable credit**

Research involving the gathering of data to form the basis for the thesis. Open only to advanced graduate students. The course can be repeated for credit. Approval of the chairperson of the department is required.

492 SEMINAR IN CHEMISTRY**1 sem. hr.**

Survey of current work in chemistry both in pure research and in the application of newer theories of chemistry to the teaching of chemistry at the secondary and college levels. May be repeated for a total of two semester hours.

499 MASTER'S THESIS**1-6 sem. hrs.****COMMUNICATION (COM)**

Chairperson: Vincent Hazleton. Office: Stevenson 116-B.
Graduate Faculty: J. Boaz, M. Comadena, J. Cragan, B. Cupach, C. Cutbirth, M. Haefner, V. Hazleton, T. Imahori, T. Jackson, S. Kapoor, C. Kinsky, S. Metts, G. Padgett, W. Sendlak, P. Siegel, C.E. Streeter, T-H Tchong, G. Tuttle, L. Watkins, F. Wisely, D. Wright.

The department offers work leading to the M.A. and M.S. degrees in Communication.

The Communication degree is designed to meet the individual needs of the graduate student. Two courses are required: COM 422, Proseminar in Communication and COM 497, Introduction to Research Methodology. The remaining courses are selected by the student and adviser. Areas of interest include, but are not limited to: applied communication, communication education, communication theory and mass communication. All programs can include a graduate internship.

Courses**301 ADVANCED REFERENCE SOURCES****3 sem. hrs.**

The selection, use, and evaluation of print and non-print reference materials in selected subject fields. Includes clinical experiences. Not for graduate credit for Communication majors.

302 COMMUNICATION CRITICISM**3 sem. hrs.**

The course develops critical skills for describing, interpreting, and evaluating communication from different theoretical perspectives.

303 CONTROVERSY AND CONTEMPORARY SOCIETY**3 sem. hrs.**

Contemporary communication on current, significant, controversial issues.

304 FREEDOM OF SPEECH AND PRESS**3 sem. hrs.**

A study of First Amendment rights. Emphasis on Supreme Court decisions relating to political dissent, obscenity, provocation and demonstration, and press freedom.

305 BUILDING AND MAINTAINING LIBRARY COLLECTIONS**3 sem. hrs.**

A survey of general selection aids, principles of selection, criteria for evaluation. Development of a materials selection policy, intellectual freedom and censorship. Includes clinical experiences. Not for graduate credit for Communication majors.

306 LIBRARY MATERIALS FOR CHILDREN**3 sem. hrs.**

Selection, evaluation, and use of media in various subject areas. Use of materials in meeting individual interests, needs, and abilities of children. Prerequisite: COM 305, or consent of instructor. Includes clinical experiences. Not for graduate credit for Communication majors.

307 MEDIA FOR YOUNG ADULTS**3 sem. hrs.**

Selection, evaluation, and use of media for young adults in public and secondary school libraries. Materials are related to development of young people and to the school curriculum. Prerequisite: COM 305, or consent of instructor. Includes clinical experiences. Not for graduate credit for Communication majors.

308 LIBRARY MATERIALS FOR ADULTS**3 sem. hrs.**

Evaluation, selection, and use of materials/media for adults. A study and analysis of interests and information needs. Prerequisite: COM 305, or consent of instructor. Not for graduate credit for Communication majors.

310 ORGANIZATION OF LIBRARY MATERIALS**4 sem. hrs.**

Principles of cataloging and classification and their application in organizing media collections; Dewey Decimal Classification System and the Anglo-American cataloging code. Supervised laboratory work. Includes clinical experiences. Not for graduate credit for Communication majors.

312 ADMINISTERING LIBRARIES**3 sem. hrs.**

Principles and procedures in planning, directing, and evaluating library organizations. Includes clinical experiences. Not for graduate credit for Communication majors.

319 COMPUTER GRAPHICS**3 sem. hrs.**

Combination of graphic techniques and computer programming as means of industrial communication applied to solution and interpretation of technological problems. Also offered as IT 319. Materials charge optional.

321 MESSAGE COMPOSITION**3 sem. hrs.**

The application of communication theory and research to the composition of informative and persuasive messages. Emphasis: organizational and language factors affecting mediated and non-mediated communication. Prerequisite: COM 110 or consent of instructor.

323 THEORY AND RESEARCH IN SMALL GROUP COMMUNICATION
3 sem. hrs.

Theoretical and experimental literature dealing with small group communication processes. Prerequisite: COM 110, 297 recommended.

324 THEORY AND RESEARCH IN PERSUASION
3 sem. hrs.

A survey of contemporary theoretical and empirical literature dealing with the question of how an individual's attitudes, beliefs, and social behaviors are affected by communication. Prerequisite: COM 110, 297 recommended.

325 THEORY AND RESEARCH IN INTERPERSONAL COMMUNICATION
3 sem. hrs.

Analysis of interpersonal communication research and its implications for developing, maintaining, and terminating relationships. Focus on developing communicative competence. Prerequisite: COM 110, 297 recommended.

329 ORGANIZATIONAL COMMUNICATION
3 sem. hrs.

An examination of theoretical and experimental literature dealing with communication in an organizational setting. Prerequisite: COM 110 or consent of instructor.

330 DIRECTING THE FORENSIC PROGRAM
3 sem. hrs.

Theoretical and procedural aspects of organizing and maintaining a debate and individual speaking events program. Prerequisite: COM 110, or consent of instructor.

331 HUMAN COMMUNICATION AND THE AGING PROCESS
3 sem. hrs.

An examination of the particular communication needs of the aging and current research in the field.

337 PROGRAMMED LEARNING
3 sem. hrs.

Construction and evaluation of programmed sequences for various media; analysis and application of theories as they relate to instruction. Clinical hours available.

340 COMPUTER APPLICATIONS IN EDUCATION
3 sem. hrs.

Examination and discussion of the ways computers may be used in education. Emphasis on selection, production, and evaluation of computer instructional programs.

345 INTRODUCTION TO LIBRARY TECHNOLOGY
3 sem. hrs.

Application of mechanized, automated, and computerized equipment to achieve economy, efficiency, and speed in library operations. Analysis and design of library systems. Not for graduate credit for Communication majors.

346 AUTOMATED BIBLIOGRAPHIC CONTROL
3 sem. hrs.

Operation, characteristics, and applications of automated bibliographic networks, emphasizing OCLC subsystems with introduction to such subsystems as BALLOTS and RLIN. Prerequisite: COM 310, or consent of instructor. Not for graduate credit for Communication majors.

360 MASS COMMUNICATION: THEORY AND EFFECTS
3 sem. hrs.

A critical examination of channel and receiver variables and their effects on the act of moving information through a given medium. Students participate in at least one research project of their design. Prerequisite: COM 160.

361 REGULATION OF THE COMMUNICATION INDUSTRY
3 sem. hrs.

The legal background of mass media, specific laws affecting media operations and industry efforts at self regulation. Prerequisite: COM 160.

362 INSTRUCTIONAL TELEVISION
3 sem. hrs.

Television as a means of instruction in terms of research, technique, utilization, and evaluation. Lecture and laboratory.

363 PRIVACY AND INFORMATION PROCESSING
3 sem. hrs.

An examination of concepts about individual privacy as related to the processing of information in a technological society. The study of institutional procedures with regard to the dissemination of sensitive information.

364 BROADCAST MANAGEMENT
3 sem. hrs.

The role and functions of broadcast media managers in society. Prerequisites: COM 160, 264.

365 FUNDAMENTALS OF GRAPHIC PRODUCTION
3 sem. hrs.

Fundamental skills and techniques for mounting, lettering, coloring, illustrating, and reproducing graphic materials. Prerequisite: COM 240, or consent of instructor. Lecture and laboratory. Materials charge optional. Clinical hours available.

366 GRAPHIC DESIGN AND PRODUCTION
3 sem. hrs.

Design and practice in the application of skills and knowledge to specific production problems. Student must integrate skills, knowledge of materials, design, and communication theory. Prerequisite: COM 365, or consent of instructor. Lecture and laboratory. Materials charge optional.

367 AUDIO PRODUCTION
3 sem. hrs.

Selection, evaluation, production, operation, and maintenance of audio devices and materials. Lecture and laboratory. Materials charge optional.

369 INTERNATIONAL COMMUNICATION SYSTEMS
3 sem. hrs.

Examination of mass communication systems employed in foreign countries, their role in national, social and cultural development.

370 PSYCHOLOGY OF LANGUAGE
3 sem. hrs.

Theories and experimental research relating to the development and functions of language. Prerequisite: COM 110, 297 recommended, or consent of instructor.

371 POLITICAL COMMUNICATION**3-4 sem. hrs.**

Basic theory and research relating to political campaign communication. Special attention is paid to the persuasive process of political campaigning focusing upon the role of the media, the candidate, image creation, and other selected topics on political campaign communication. Prerequisite: 6 hrs. COM or 6 hrs. POS, or consent of instructor.

372 INTERCULTURAL COMMUNICATION**3 sem. hrs.**

Theories and research relating to face-to-face communication among people from different cultural, national, ethnic, or racial backgrounds. Prerequisites: COM 110, 297 recommended.

374 STORYTELLING**3 sem. hrs.**

The art of storytelling based on knowledge of folklore and heritage with experiences in oral transmission of literature in library or classroom settings. Also offered as ENG 374.

381 PROBLEMS IN THE TEACHING OF COMMUNICATION**3 sem. hrs.**

Identification of common and unique problems in teaching communication concepts and skills. Approaches to resolving classroom problems. Clinical hours available.

385 EDITORIAL AND FEATURE WRITING**3 sem. hrs.**

Advanced training in writing feature articles and editorials for newspapers and magazines.

386 TECHNICAL COMPUTER PROGRAMMING**3 sem. hrs.**

Digital computer systems, programming digital computers, and their use in solving problems related to applied sciences and technologies. Also offered as IT 386. Laboratory arranged. Materials charge optional.

391 PROFESSIONAL METHODS IN LIBRARY SCIENCE AND INSTRUCTIONAL MEDIA**3 sem. hrs.**

Identification, examination and appraisal of professional methods, competencies, standards of practice and current issues and problems in the library science and instructional media field. Not for graduate credit for Communication majors.

392 TOPICS IN COMMUNICATION INSTRUCTION**1 sem. hr.**

Identification and development of new instructional content, approaches, strategies, and materials for selected oral communication concepts in educational and business classrooms. Seven topics; each may be taken once; maximum 3 credits toward degree. See Undergraduate Catalog for complete listing of topics.

422 PROSEMINAR IN COMMUNICATION**3 sem. hrs.**

Introduction to theory, empirical research, and methods in communication. Includes units on the process of communication and a survey of theory and research in the following areas: language, nonverbal, interpersonal, small group, rhetorical theory, persuasion, and mass communication. Must be taken by first year graduate students who have not had equivalent course.

423 THE PROCESS OF COMMUNICATION**3 sem. hrs.**

Studies the process of communication as it occurs between individuals, small groups, in organizations, and in mass societies. Covers theoretical and research literature from the fields of speech, psychology, sociology, and communication. No credit for Communication students.

424 SEMINAR IN PERSUASION**3 sem. hrs.**

The examination of selected areas of theory and research in persuasion. Prerequisite: COM 324, or consent of instructor.

425 SEMINAR IN NONVERBAL COMMUNICATION**3 sem. hrs.**

Advanced study of the elements and functions of nonverbal communication in human interaction. May be repeated if different material is covered. Prerequisite: COM 225 or its equivalent recommended.

433 ADMINISTRATION OF MEDIA ORGANIZATIONS**3 sem. hrs.**

Principles and practices of organizing and managing media programs in school systems, colleges, business, and industry. Considers services, facilities, budgeting, personnel, public relations, and evaluation.

434 RESEARCH IN INSTRUCTIONAL MEDIA**3 sem. hrs.**

Critical analysis of selected research studies in institutional communications and technology. Research methods and sources of data in major categories of media research.

435 INSTRUCTIONAL SYSTEMS DEVELOPMENT**3 sem. hrs.**

Involves specific identification of an instructional problem; analysis of the resources and alternatives; and the synthesizing procedures toward an effective solution.

436 INSTRUCTIONAL MESSAGE DESIGN**3 sem. hrs.**

Planning and designing mediated instructional messages. Concepts developed are applied to the production and evaluation of a selected design problem. Prerequisite: COM 365. Clinical hours available.

460 SEMINAR IN MASS COMMUNICATION**3 sem. hrs.**

May be repeated for a total of six semester hours if different material is covered. Prerequisite: COM 360, or consent of instructor.

481 SEMINAR IN COMMUNICATION EDUCATION**3 sem. hrs.**

Examination of recent developments in theory and research in communication education.

491 INTERNSHIP IN COLLEGE TEACHING IN COMMUNICATION**3 sem. hrs.**

Credit for the course is given in C&I (see C&I 491).

492 SEMINAR IN COMMUNICATION THEORY**3 sem. hrs.**

Advanced examination of selected areas of communication theory. Prerequisite: Consent of instructor.

494 SEMINAR IN SMALL GROUP COMMUNICATION
3 sem. hrs.

May be repeated for a total of six semester hours if different material is covered. Prerequisite: COM 323, or consent of instructor.

495 SEMINAR IN ORGANIZATIONAL COMMUNICATION
3 sem. hrs.

May be repeated for a total of six semester hours if different material is covered. Prerequisite: COM 329, or consent of instructor.

496 SEMINAR IN RHETORICAL THEORY
3 sem. hrs.

May be repeated for a total of six semester hours if different material is covered.

497 INTRODUCTION TO RESEARCH METHODOLOGY
3 sem. hrs.

Introduction to methods of scholarly research and the critical evaluation of research in communication. Must be taken by first year graduate students. May be repeated for a total of six semester hours by advanced students as they pursue special research problems.

498 PROFESSIONAL PRACTICE IN COMMUNICATION
9 hrs. maximum.

Refer to Index for General Courses.

499 MASTER'S THESIS
1-6 sem. hrs.

ECONOMICS (ECO)

Chairperson: Alan E. Dillingham. Office: Stevenson 425.
Graduate Faculty: L. Carlson, J. Chizmar, R. Cohn, A. Dillingham, W. Harden, L. Hiebert, B. McCarney, M. Morey, M. Nelson, A. Ostrosky, V. Owen, R. Ram, D. Ramsey, N. Skaggs, R. Singh, M. Wyzan.

Master's Degree in Economics

The Department of Economics offers work leading to the M.A. or M.S. degree. The student will ordinarily be expected to write a thesis for which four to six hours of credit will be given. If the student can demonstrate to the satisfaction of the department chairperson that substantive writing in the discipline already has been done, the student may elect to take 32 semester hours of course work and write a comprehensive examination in lieu of the thesis. ECO 438, 440, and 441 are required of all master's degree candidates.

Admission to the program without course deficiencies requires that the student present ECO 100, 101, 130, 131, 240, and 241, or equivalents.

Applied Economics Concentration: With the consent and advice of the chairperson, a student may obtain a concentration in Applied Economics by completing ECO 490 and other courses in the following list: ECO 330, 331, 333, 439, MAT 356, 361, 450, 455, or 458.

Doctor of Arts

The Doctor of Arts in Economics is offered to persons seeking advanced training for teaching and curriculum

leadership in colleges, universities and community colleges. The twin objectives of the program are to improve teaching and curriculum development and to improve research skills to judge the impacts and effectiveness of different teaching techniques and innovations. Entry into the program ordinarily requires a master's degree or equivalent and successful teaching experience. Each doctoral student is required to pass a comprehensive examination that covers the economics core and the Seminar and Practicum in the Teaching of Economics. Students have the option of selecting as many as two teaching fields within economics or as many as three teaching fields outside of economics; a total of three fields must be taken. A field ordinarily consists of two related graduate courses. The program requires a six hour Professional Studies component. A dissertation consistent with the above objectives of the program is required. The normal residence requirement is one year, but commuter students who demonstrate continuing progress in the program may have that reduced to one semester.

Courses

302 PROBLEMS IN THE WORLD ECONOMY
2-3 sem. hrs.

Application of economic theories to contemporary world problems. Practice in economic analysis using relevant data. Topics may change with contemporary events. Prerequisites: ECO 100, 101, ECO 240 or 241 recommended.

310 SOVIET ECONOMY
3 sem. hrs.

Economic growth of the Soviet Union. NEP and economic planning. Examination of particular sectors of the Soviet economy. Pricing, decentralization, and economic reform. Prerequisite: ECO 101.

320 INDUSTRIAL ORGANIZATION AND PRICES
3 sem. hrs.

Theoretical and empirical analysis of basic influences on industrial markets and performances. Market practices, the role of competition, and related policy issues. Prerequisite: ECO 101.

326 ECONOMICS OF HUMAN RESOURCES
3 sem. hrs.

Theoretical and empirical analysis of labor markets. Education and training, labor mobility, wage structure, discrimination, unemployment, wage and income policies. Prerequisites: ECO 100, 101. ECO 225, 240 recommended.

327 COLLECTIVE BARGAINING AND INDUSTRIAL RELATIONS
3 sem. hrs.

Economic analysis of U.S. industrial relations systems, determinants of its structure, collective bargaining environment and outcomes, trade union structure, administration, growth and power. Prerequisites: ECO 100, 101. ECO 225 recommended.

328 DEMOGRAPHIC ECONOMICS
3 sem. hrs.

Theoretical and empirical study of the economics of population changes, distributions, and characteristics. Population dynamics, policy issues, and economic consequences. Prerequisites: ECO 100, 101.

329 ECONOMIC ISSUES IN EDUCATION**3 sem. hrs.**

Analysis of economic issues in education including efficiency and equity, public vs. private provision of educational services, and education as human capital. Prerequisite: ECO 101.

330 MATHEMATICAL ECONOMICS**3 sem. hrs.**

Integral calculus, difference equations, differential equations, and linear algebra in relation to economic theory. Prerequisites: ECO 100 and 101, and course work in differential and integral calculus.

331 INTERMEDIATE ECONOMIC STATISTICS**3 sem. hrs.**

Intermediate level probability and sampling theory. Hypothesis testing. Estimation. Basic econometric principles. Use of common regression packages such as ESP. Prerequisites: ECO 131, and course work in differential and integral calculus.

333 OPERATIONS RESEARCH**3 sem. hrs.**

Quantitative techniques for economic analysis and decision making. Includes linear programming, input-output analysis, game theory, queuing theory, and probabilistic models, with emphasis on applications to theory of the firm. Prerequisites: ECO 131, and course work in differential and integral calculus.

335 ECONOMICS OF TRANSPORTATION AND PUBLIC UTILITIES**3 sem. hrs.**

An analysis of contemporary issues in transportation and public utilities, with emphasis on the impact of regulation. Prerequisites: ECO 100, 101.

345 INTERNATIONAL TRADE**3 sem. hrs.**

Study of the causes and consequences of international trade. Analysis of tariffs, quotas, other trade restrictions, current trade policy and multinational corporations. Prerequisites: ECO 100, 101. ECO 240 recommended.

346 INTERNATIONAL MONETARY THEORY**3 sem. hrs.**

Analysis of mechanisms of international payments and evaluation of the international monetary system. Topics include exchange rates, balance of payments, international monetary cooperation, and connections between the domestic and international economy. Prerequisites: ECO 100, 101. ECO 215 recommended.

350 PUBLIC FINANCE**3 sem. hrs.**

Role of government in the economy. Analysis of the economic impacts of government expenditures and taxes on the allocation of resources, the distribution of income, employment, prices, and economic growth. Prerequisite: ECO 101.

351 STATE AND LOCAL FINANCE**3 sem. hrs.**

Economic impacts of state and local tax and expenditure programs, intergovernmental fiscal relations and problems of metropolitan areas. Prerequisite: ECO 101. ECO 240 recommended.

353 THE ANALYSIS OF TIME SERIES**3 sem. hrs.**

Theory of and applications of time series methods with special reference to business and economic time series. Topics include classical decomposition methods, Box-

Jenkins methods, spectral analysis and robust methods. Practical applications is obtained through the use of main-frame and microcomputer statistical packages. Prerequisites: ECO 351, MAT 350 or consent of instructor. Also offered as MAT 353.

355 ENVIRONMENTAL ECONOMICS**3 sem. hrs.**

Theoretical and empirical analysis of environmental pollution generation and of corrective policies. Emphasis upon the resource allocation implications of public policy decisions. Prerequisites: ECO 100, 101. ECO 131, 240 recommended.

357 URBAN AND REGIONAL ECONOMICS**3 sem. hrs.**

A theoretical and empirical analysis of cities and regions. Pricing and efficiency aspects of urban policies and problems. Prerequisites: ECO 100, 101. ECO 240 recommended.

360 DEVELOPMENT OF THE AMERICAN ECONOMY**3 sem. hrs.**

Recent empirical studies and applications of economic theory to historical problems in an American context. Causes of the Great Depression, economics of slavery, and roles of agriculture, industry, and government in growth. Prerequisites: ECO 100 and 101.

372 HISTORY OF ECONOMIC THOUGHT**3 sem. hrs.**

A study of economic analysis from the Mercantilists to the American Institutionalists. Relates earlier schools of thought to the contemporary. Prerequisites: ECO 100, 101.

401 SURVEY OF ECONOMIC PRINCIPLES**3 sem. hrs.**

Compresses into a single semester matters ordinarily covered in two semesters of Economic Principles. Enrollment is limited to graduate students who have had no more than one semester of previous study in economics. Cannot be presented for graduate credit by a degree candidate in Economics or in the MBA program.

402 CONCEPTS, METHODS, AND MATERIALS FOR IMPLEMENTING ECONOMIC EDUCATION**3 sem. hrs.**

This workshop synthesizes basic concepts, methods, and materials for implementing Economic Education in the K-12 grade levels. Not open to Economic majors and minors.

404 ECONOMIC ANALYSIS FOR BUSINESS DECISIONS**3 sem. hrs.**

Microeconomic theory and its application to the analysis of business decision-making. Prerequisites: ECO 100, 101, 131 or MQM 100 or equivalent. Not for credit by Economic majors.

405 THEORIES OF ECONOMIC DEVELOPMENT**3 sem. hrs.**

Consideration of economic development theories and their implications for development policy to further economic growth. Prerequisite: ECO 205 or equivalent.

415 MONETARY ECONOMICS**3 sem. hrs.**

The role of money in economic activity; the precise nature of the demand and supply conditions; the policy implications of theoretical conclusions with regard to money. Prerequisite: ECO 241 or equivalent.

416 STABILIZATION THEORY AND POLICY
3 sem. hrs.

Theory of economic policy, impacts of monetary and fiscal policies on employment and price levels, interest rates, growth, and balance of payments, implementation and coordination problems of monetary and fiscal policies. Prerequisite: ECO 241 or equivalent.

435 TOPICS IN TRANSPORT AND PUBLIC UTILITY PRICING
3 sem. hrs.

An investigation of contemporary topics and problems related to Transportation and Public Utility Regulation. Prerequisite: ECO 335 or 320.

438 ECONOMETRICS I
3 sem. hrs.

Study of the linear regression model, properties of estimators, simultaneous equations, and specification and identification in economic theory and economic problems. Prerequisite: ECO 331, or MAT 350, or consent of instructor.

439 ECONOMETRICS II
3 sem. hrs.

Advanced topics in econometrics, including modeling, simultaneous equations, Monte Carlo methods, spectral analysis. Fall only. Prerequisite: ECO 438.

440 ADVANCED MICROECONOMIC THEORY I
3 sem. hrs.

The theory of the firm, the consumer and the resource owner, and the determination of prices under alternative market structures. Prerequisites: ECO 240 and work in calculus.

441 ADVANCED MACROECONOMIC THEORY I
3 sem. hrs.

National income analysis with emphasis on the contemporary theories of consumption, investment and interest, also consideration of the level, growth, and fluctuations of national income. Prerequisites: ECO 241 and work in calculus.

445 INTERNATIONAL ECONOMIC ANALYSIS
3 sem. hrs.

Pure theory of trade, and international finance, growth and trade, balance of payments adjustment, and the theory of exchange rate determination are considered. Prerequisite: ECO 345.

450 ADVANCED PUBLIC FINANCE
3 sem. hrs.

Expenditure theories, cost-benefit analysis, tax incidence, welfare economics of public finance, and technical problems of income, sales, profit, and property taxes. Prerequisite: ECO 240 or equivalent.

490 SEMINAR IN ECONOMICS
1-4 sem. hrs.**491 INTERNSHIP IN COLLEGE TEACHING IN ECONOMICS**
3 sem. hrs.

Credit for the course is given in Curriculum and Instruction (see C&I 491).

492 GRADUATE READINGS IN ECONOMICS
1-3 sem. hrs.

For the graduate student who would benefit from a more specialized independent type of study adapted to his/her background and needs. Prerequisites: Consent of department chairperson and instructor.

499 MASTER'S THESIS
1-6 sem. hrs.**540 ADVANCED MICROECONOMIC THEORY II**
3 sem. hrs.

Advanced topics in consumption and production theory, uncertainty, general equilibrium, and welfare economics. Prerequisites: ECO 330 and 440.

541 ADVANCED MACROECONOMIC THEORY II
3 sem. hrs.

Extensions and refinements of basic static macro models and related empirical studies; growth models, disequilibrium macro models, and introduction to dynamic macro models. Prerequisites: ECO 330 and 441.

599 RESEARCH IN ECONOMICS
Variable credit

Research involving the gathering of data to form the basis of the dissertation required for the Doctor of Arts.

ENGLISH (ENG)

Chairperson: Charles B. Harris. Office: Stevenson Hall 409-D.

Director of Graduate Studies: William C. Woodson. Office: Stevenson Hall 409-B.

Graduate Faculty: I. Brosnahan, L. Brosnahan, R. Carr, C. Cox, R. Dammers, R. Duncan, R. Fortune, L. Getsi, G. Grever, C. Harris, V. Harris, G. Hawisher, B. Hawkins, D. Hesse, V. Hutton, S. Kagle, J. Kalmbach, W. Linneman, E. McMahan, W. Morgan, C. Neely, J. Neuleib, S. Renner, C. Richardson, J. Roof, R. Rutter, M. Scharton, J. Shields, M. Steffensen, R. Strickland, R. Sutherland, R. Tarr, C. White, R. White, L. Wilcox, W. Woodson, J. Youga.

The Department of English offers programs of graduate work leading to the Master of Arts, Master of Science, and the Doctor of Arts. A master's degree program is offered both in English and in Writing. University requirements for these degrees are listed elsewhere in this catalog. Departmental requirements are as follows.

Master's Degree in English

The Department offers a master's degree in English, with emphases by advising in Creative Writing, Children's Literature, and Traditional Literature; special studies in cognate areas allow other emphases, particularly for practicing teachers. This degree requires eleven courses; the thesis is optional.

Master's Degree in Writing

The master's degree in writing offers sequences in the Teaching of Writing and in Professional Writing. Each sequence includes eighteen hours of required courses, nine hours of courses that are specific to the emphases, and three hours of electives. An internship or practicum, comprehensive examinations, and a thesis are required.

Teaching of Writing Sequence

In this sequence, courses will be selected with the assistance of an adviser to provide an emphasis in community college teaching, teaching English to speakers of other languages, or secondary teaching.

Professional Writing Sequence

In this sequence, courses will be selected with the assistance of an adviser to provide an emphasis in technical writing, general writing or creative writing.

Required core courses (18 hours): ENG 401, 402, 341, and three literature courses selected from the following: ENG 308, 311, 320, 324, 325, 327, 328, 329, 332, 336, 352, 360, 375, 378, 382, 386, 387, 388, 403, 404, 414, 415, 416, 417, 418, 419, 422, 428, 432, 433, 434, 450, 454, 456, 482, 486, 487.

9 hours selected from at least two of the following groups: Rhetorical Studies (3-6 hours): ENG 391, 392, 483. Professional Writing (3-6 hours): ENG 347, 348, 349, 447. Language (3-6 hours): ENG 310, 440. Teaching (3-6 hours): ENG 343, 344, 345, 346, 395, 445, 495.

3 hours of electives may be selected from courses not used to meet distribution requirements or from other appropriate courses in the graduate English curriculum. Students in the teaching sequence may select from the following cognate courses: SED 303, 420, 403; C&I 472; EAF 473; PSY 360, 489; students whose research interests involve the use of statistics and experimental design will be encouraged to select from the following cognate courses: EAF 410, 411, 510 (sequenced as appropriate); MAT 350, 351, 458; other appropriate electives may be chosen.

Internship, portfolio, or Practicum (3 hours): ENG 396, 394, or 498.

Thesis (4 hours): ENG 499.

Doctor of Arts

The Doctor of Arts in English is designed for those who have a demonstrated career commitment to teaching, especially in two and four year colleges. Its purpose is to provide integrating theories for undergraduate instruction in composition, language, and literature. The program requires ENG 510, 540, 560, 590, and 591; English electives, 9-12 hours, 6 in literature courses; Higher Education, 1-6 hours; cognate field, 12 hours; a comprehensive examination; and a dissertation on the teaching of language, literature, or composition.

A full-time student should normally complete all but the dissertation in two calendar years, a part-time student, in four years. The residency requirement is ordinarily one year, but can be reduced to one semester.

Admission to the program requires a master's degree or equivalent and, ordinarily, prior teaching experience. For additional information write the Director of Graduate Studies, Department of English, Illinois State University.

Courses

308 LITERATURE AND THE RELATED ARTS 3 sem. hrs.

Study of formal, aesthetic, and cultural relationships among literature, art, and music with special emphasis upon literary understanding.

310 HISTORY AND DEVELOPMENT OF THE ENGLISH LANGUAGE 3 sem. hrs.

Development of the English language from the Old English period to the present, with attention to operational structures of contemporary English.

311 INTRODUCTION TO OLD ENGLISH LANGUAGE AND LITERATURE 3 sem. hrs.

The elements of Old English grammar, with selected readings in Old English literature.

320 CHAUCER 3 sem. hrs.

Literary and linguistic study of the major works of Chaucer; text in Middle English.

324 MILTON 3 sem. hrs.

Major poetry and prose of John Milton; special attention to *Paradise Lost*.

327 RESTORATION AND EIGHTEENTH-CENTURY DRAMA 3 sem. hrs.

English drama from 1660 to 1800, including playwrights such as Dryden, Wycherley, Congreve, Goldsmith, Sheridan.

328 MODERN BRITISH AND AMERICAN DRAMA 3 sem. hrs.

Twentieth century British and American drama and related criticisms; playwrights such as Shaw, O'Neill, Williams, Albee, Pinter, Beckett.

329 SELECTED FIGURES IN BRITISH LITERATURE 3 sem. hrs.

Involves the study of important literary figures, genres, or movements. May be repeated if content different.

332 SELECTED FIGURES IN AMERICAN LITERATURE 3 sem. hrs.

Study of important literary figures, genres, or movements. May be repeated if content different.

336 THE AMERICAN NOVEL 3 sem. hrs.

Historical survey of major American novelists, including authors such as Twain, Hawthorne, Melville, Crane, Hemingway, Faulkner, and Barth.

341 INTRODUCTION TO DESCRIPTIVE LINGUISTICS 3 sem. hrs.

Aims and methods of linguistic science. Nature and functions of language: phonology, morphology, syntax, dialectology. Relationship of language to culture.

343 CROSS-CULTURAL ASPECTS IN TESOL 3 sem. hrs.

The relationship between language, culture, and cultural awareness in the learning and teaching of English as a Second Language.

344 TESOL: THEORETICAL FOUNDATIONS 3 sem. hrs.

Linguistic theories, first and second language acquisition, cognitive, affective, and cultural factors in teaching English as a Second Language. Prerequisite: ENG 243 or 341.

345 TESOL METHODS AND MATERIALS 3 sem. hrs.

Methodologies and techniques for teaching English as a Second Language; evaluation of materials for various levels and instructional goals. Prerequisite: ENG 344; includes clinical experience.

346 ASSESSMENT AND TESTING IN ESL**3 sem. hrs.**

Study of issues and methods of assessing oral and written proficiency in English as a Second Language. Prerequisite: ENG 341.

347 ADVANCED CREATIVE WRITING**3 sem. hrs.**

Workshop format for individual projects, usually the writing of a series of poems or group of short stories. Poetry writing offered in Fall. Prose writing offered in Spring. May be repeated once if content different. Prerequisite: ENG 247 or graduate standing.

348 PLAYWRITING**3 sem. hrs.**

Playwriting techniques of selected masters with practical application of techniques in writing original plays. Also offered as THE 348.

349 TECHNICAL WRITING II**3 sem. hrs.**

Instruction and practice in editing, proposals, and analytical writing; attention given to style manuals, research-writing, and (as needed) publication. Prerequisite: ENG 249 or graduate standing. Materials charge optional. Also offered as IT 349.

352 SELECTED FIGURES IN WORLD LITERATURE**3 sem. hrs.**

Involves the study of important literary figures, types, themes, or movements. May be repeated if content different.

360 STUDIES IN WOMEN AND LITERATURE**3 sem. hrs.**

Studies in literature by or about women, focusing on stereotyping of male/female experience and developing feminist aesthetic theories.

370 STUDIES IN THE HISTORY OF LITERATURE FOR YOUNG PEOPLE**3 sem. hrs.**

Advanced critical, chronological examination of literature for children and adolescents from folklore origins to 1900. Prerequisite: ENG 170.

372 STUDIES IN CONTEMPORARY LITERATURE FOR YOUNG PEOPLE**3 sem. hrs.**

A problem-centered course, emphasizing trends and research related to recent literature for children and early adolescents. Prerequisite: ENG 170 or consent of instructor.

373 VERSE FOR CHILDREN**3 sem. hrs.**

Verse for use in kindergarten through grade eight, including various categories, elements, and well-known poets in the field. Prerequisites: ENG 170 and 271, or 272.

374 STORYTELLING**3 sem. hrs.**

The art of storytelling, based on knowledge of folklore heritage, with experiences in oral transmission of literature in library or classroom setting. Also offered as COM 374.

375 STUDIES IN LITERATURE FOR ADOLESCENTS**3 sem. hrs.**

Advanced critical examination of literature for grades seven through twelve, with emphasis on trends and research.

378 SHAKESPEARE ON STAGE**3 sem. hrs.**

An intensive study of Shakespeare's plays in production. For the student with adequate familiarity with Shakespeare and his work. May be repeated once. Cross listed THE 378.

382 LITERARY CRITICISM**3 sem. hrs.**

Historical survey of selected great texts in literary and critical theory from Plato to the present.

386 THE EIGHTEENTH-CENTURY ENGLISH NOVEL**3 sem. hrs.**

The English novel from its origins through the eighteenth-century, including writers such as Richardson, Fielding, Smollett, Sterne.

387 THE NINETEENTH-CENTURY ENGLISH NOVEL**3 sem. hrs.**

The English novel between 1800 and 1900, treating writers such as Austen, Thackeray, Dickens, Eliot, Hardy.

388 THE TWENTIETH-CENTURY ENGLISH NOVEL**3 sem. hrs.**

The English novel since 1900, treating writers such as Bennett, Lawrence, Woolf, Joyce, Greene.

390 RECENT RESEARCH IN THE TEACHING OF LANGUAGE ARTS**3 sem. hrs.**

Critical study of current practice and research in the teaching of language arts in the elementary school. Prerequisite: ENG 290 or equivalent.

391 SURVEY OF CLASSICAL RHETORIC**3 sem. hrs.**

Rhetorical theories from ancient Greece to 1900, emphasizing Plato, Aristotle, Cicero, and Quintilian.

392 MODERN THEORIES OF RHETORIC**3 sem. hrs.**

Studies of the principles of rhetoric to serve as a basis for understanding contemporary rhetorical theories.

394 TESOL PRACTICUM**1-6 sem. hrs.**

Observation, case studies, tutoring, instructional assistance, and/or direct instruction in English as a Second Language. Prerequisite: ENG 345.

395 PROBLEMS IN THE TEACHING OF ENGLISH**3 sem. hrs.**

Examination of theory and practice in the teaching of language, literature, and composition at the secondary and community college level. Prerequisite: Experience in teaching (student teaching acceptable), or ENG 296, 297.

396 THE WRITING SEMINAR**3 sem. hrs.**

Concentration upon a major writing project and the formulation of an individual writing portfolio. Prerequisite: a minimum of 12 hours of core courses in the writing minor, or graduate standing.

401 INTRODUCTION TO GRADUATE STUDY**3 sem. hrs.**

Introduction to bibliography, methods of research, critical evaluation of scholarship, and applied literary criticism. Prerequisite: Graduate standing.

402 INTRODUCTION TO THE COMPOSING PROCESS**3 sem. hrs.**

Surveys basic theoretical and empirical research into the composing process.

403 STUDIES IN POETIC FORMS AND CONVENTIONS**3 sem. hrs.**

Close analysis of selected poems from medieval to modern emphasizing the development of forms, genres, and traditions.

404 STUDIES IN NARRATIVE FORM AND THEORY**3 sem. hrs.**

Analysis of the development of narrative form and theory.

414 STUDIES IN SIXTEENTH-CENTURY BRITISH LITERATURE**3 sem. hrs.**

Several important authors such as More, Sidney, and Spenser, or a particular literary movement or genre.

415 STUDIES IN SEVENTEENTH-CENTURY BRITISH LITERATURE**3 sem. hrs.**

Selected seventeenth-century writers such as Bacon, Donne, Jonson, Herbert, Bunyan, (excluding Milton), or a particular literary movement or genre.

416 STUDIES IN EIGHTEENTH-CENTURY BRITISH LITERATURE**3 sem. hrs.**

Important authors of the period, such as Dryden, Pope, Swift, Johnson, or a particular movement or genre.

417 STUDIES IN ROMANTIC BRITISH LITERATURE**3 sem. hrs.**

Selected movements, genres, or authors such as Blake, Wordsworth, Coleridge, Byron, Shelley, Keats.

418 STUDIES IN VICTORIAN BRITISH LITERATURE**3 sem. hrs.**

Authors in the period 1832-1901, such as Browning, Carlyle, Tennyson, Mill, Arnold.

419 STUDIES IN CONTEMPORARY BRITISH LITERATURE**3 sem. hrs.**

Several figures such as Yeats, Joyce, Thomas, Pinter, or a movement or genre.

422 STUDIES IN SHAKESPEARE**3 sem. hrs.**

Major critical problems in representative plays of Shakespeare.

428 STUDIES IN DRAMA**3 sem. hrs.**

Advanced study in selected works and topics from English, American, and Continental drama.

432 STUDIES IN AMERICAN LITERATURE 1830-1870**3 sem. hrs.**

Figures, movements, or genres in the American Romantic Period, treating authors such as Poe, Hawthorne, Emerson, Melville, Whitman.

433 STUDIES IN AMERICAN LITERATURE 1870-1920**3 sem. hrs.**

Figures, movements, or genres in the American Realistic-Naturalistic Period, treating authors such as Dickinson, Clemens, James, Crane, Dreiser.

434 STUDIES IN CONTEMPORARY AMERICAN LITERATURE**3 sem. hrs.**

Figures, movements, or genres in American literature since 1920, treating authors such as Eliot, Fitzgerald, Hemingway, Steinbeck, Faulkner.

440 STUDIES IN ENGLISH LINGUISTICS**3 sem. hrs.**

Advanced study and research in various aspects of the English language. Prerequisite: ENG 341 or equivalent.

445 TEACHING OF COMPOSITION IN THE COMMUNITY COLLEGE**3 sem. hrs.**

Methods for applying rhetorical theory to the teaching of writing.

447 CREATIVE WRITING SEMINAR**3 sem. hrs.**

Practice in the writing of either poetry or fiction for graduate level or professional writers. Fall, poetry; Spring fiction. Consent of instructor.

450 STUDIES IN ANCIENT LITERATURE**3 sem. hrs.**

Selected readings from antiquity, mostly Biblical and classical, with consideration of Eastern literature.

454 STUDIES IN EUROPEAN ROMANTICISM**3 sem. hrs.**

Figures, movements, or genres of the period 1770-1850 in Europe, including authors such as Goethe, Rousseau, Hugo, Heine.

456 STUDIES IN MODERN WORLD LITERATURE**3 sem. hrs.**

Figures, movements, or genres in World Literature from the mid-nineteenth century to the present, including authors such as Dostoevsky, Tolstoy, Camus, Mishima, Solzhenitsyn.

482 STUDIES IN LITERARY CRITICISM**3 sem. hrs.**

Problems or topics in literary criticism and theory.

483 STUDIES IN RHETORIC AND ENGLISH PROSE STYLE**3 sem. hrs.**

History and characteristics of English prose style at various stages of its development. Prerequisite: ENG 241 or 310 or equivalent.

486 STUDIES IN THE ENGLISH NOVEL**3 sem. hrs.**

Topics in the development of the English novel, with attention to particular techniques, figures, themes or movements.

487 STUDIES IN THE AMERICAN NOVEL**3 sem. hrs.**

Topics in the development of the American novel, with attention to particular techniques, figures, themes or movements.

491 INTERNSHIP IN COLLEGE TEACHING OF ENGLISH**3 sem. hrs.**

Supervised teaching at a cooperating community college or university. Cross-listed with C&I 491.

492 RECENT RESEARCH IN THE ENGLISH LANGUAGE ARTS**3 sem. hrs.**

Advanced study of significant research for elementary and junior high levels, tools and design of empirical research, needed research, student models. Prerequisite: Ability in statistics.

495 TOPICS IN ENGLISH**1-3 sem. hrs.**

Advanced study and research in an announced area of language or literature.

498 PROFESSIONAL PRACTICE: INTERNSHIP IN ENGLISH**1-12 sem. hrs.**

Supervised field experience in English with local, state, national, and international businesses, agencies, institutions (including colleges and universities), and organizations. Prerequisite: Consent of instructor.

499 MASTER'S THESIS**1-6 sem. hrs.****510 PROFESSIONAL SEMINAR IN THE TEACHING OF ENGLISH****4 sem. hrs.**

Research and study of the nature of college teaching, including the community college, with emphasis upon the exploration of new methods. Prerequisites: one English methods course, psychology of learning, teaching experience.

540 SEMINAR IN LANGUAGE**4 sem. hrs.**

Research in one or more areas of linguistics, from descriptive and historical studies to theory of language or practical application. Prerequisite: ENG 341, or equivalent.

560 SEMINAR IN SELECTED AREAS IN LITERATURE**4 sem. hrs.**

Research in selected areas of literary study with attention to curricular and teaching theories. Prerequisite: Previous teaching experience.

590 SEMINAR IN COMPOSITION**4 sem. hrs.**

Research in the history and philosophy of rhetoric with emphasis upon exploration of new techniques for the teaching of composition to students in community or four-year colleges.

591 PRACTICUM (INTERNSHIP) IN COLLEGE TEACHING**4 sem. hrs.**

Teaching of lower-division English courses, with emphasis upon new techniques; under faculty direction, at Illinois State University or off campus; in conjunction with tutorial meetings. Prerequisite: completion of doctoral course work.

599 RESEARCH AND DISSERTATION**1-15 sem. hrs.**

Research involving the gathering of materials and data and the writing of a dissertation.

FOREIGN LANGUAGES (FOR)

Chairperson: Diane F. Urey. Office: Stevenson Hall 412.
Graduate Faculty: J. Alstrum, W. Bohn, T. Comfort, B. Fritzen, H. Hutter, M. Johnston, M. Kiss, J.L. Laurenti, L. Olivier, D. Parent, G. Petrossian, J. Reid, C. Springer, D. Urey, R. Whitcomb.

The Department of Foreign Languages reserves the right to examine transfer students as to their ability to carry courses on the 300 level.

The department offers work leading to the Master of Arts in Foreign Language. The Master's degree program is a flexible one, permitting an emphasis in either teaching or non-teaching areas. Students who choose to emphasize development of teaching skills are encouraged to combine a concentration in one foreign language with a second language or with a program in teaching English to speakers of other languages. The non-teaching emphasis allows for a combination of language study and courses related to the fields of international affairs. Details of the various program options available, including a semester of study abroad, may be obtained from the Department of Foreign Languages. Each student's program is subject to approval by the graduate adviser and by the chairperson.

A candidate for a master's degree must take Foreign Language 497 in the first year of study. At least one full term must be spent in residence in order to qualify for the degree. A full term may be interpreted as one semester, with a class load of 8-15 hours, or a summer session with a class load of 6-9 hours.

Instruction in courses dealing with the literature and culture of the major fields of specialization (French, German, Spanish) will be carried on in the language of specialization whenever possible.

General Courses**300 RESEARCH IN FOREIGN LANGUAGES****1-3 sem. hrs.**

Supervised work in a foreign language, in comparative language studies or in educational materials for the foreign language laboratory. Assignments will depend on the preparation and interest of the student. Prerequisite: Consent of department chairperson.

320 FOREIGN LANGUAGE TEACHING IN THE SECONDARY SCHOOL**3 sem. hrs.**

Methods of teaching foreign languages in the secondary school. Special emphasis is given to audio-lingual techniques.

321 MEDIA MATERIALS AND THEIR USES IN THE TEACHING OF FOREIGN LANGUAGES**2 sem. hrs.**

Supplementing the basic methodology of Foreign Language teaching with media materials and the techniques for their use in the language classroom. Includes clinical experiences. Prerequisites: FOR 320, COM 240 recommended.

485 SELECTED STUDIES IN LINGUISTICS**3 sem. hrs.**

Intensive study of a linguistic problem, work, or technique. Content may vary according to interest and needs of students. May be repeated with different content.

491 INTERNSHIP IN COLLEGE TEACHING IN THE FOREIGN LANGUAGES**1-3 sem. hrs.**

Credit for this course is given in Curriculum and Instruction. (See C&I 491).

497 INTRODUCTION TO RESEARCH METHODOLOGY**3 sem. hrs.**

Introduction to bibliography, methods of scholarly research, and the critical evaluation of research in the field.

499 MASTER'S THESIS**1-6 sem. hrs.****French Courses****301 FRENCH ROMANTICISM****3 sem. hrs.**

Reading of poetry, novels, plays, and criticism, from the Romantic period.

302 FRENCH CLASSICISM**3 sem. hrs.**

Reading of plays by Corneille, Racine, and Moliere, and selections from other seventeenth-century writers.

309 FRENCH PHONETICS**2 sem. hrs.**

A scientific approach to French pronunciation. Correct formation of French sounds, practical application of the theory of phonetics.

310 FRENCH SYNTAX**3 sem. hours.**

Systematic study of the morphology and syntax of the modern French language.

316 FRENCH LITERATURE OF THE SIXTEENTH CENTURY**3 sem. hrs.**

Analysis of the Renaissance as expressed in the works of leading writers of France in the 16th century.

322 FRENCH LITERATURE OF THE MIDDLE AGES (LE MOYEN AGE)**3 sem. hrs.**

A study of medieval French literature in modern French translation.

385 SELECTED TOPICS IN FRENCH LITERATURE**3 sem. hrs.**

Intensive study of a genre, group of authors or a single major writer in French literature. This study varies each semester. May be repeated with different content.

401 TWENTIETH-CENTURY AUTHORS 1900-1945**3 sem. hrs.**

Selected authors of the period with emphasis on Gide and Proust. Additional readings from such authors as Valery, Mauriac, Malraux, and Sartre.

402 STYLISTICS**3 sem. hrs.**

Intensive, advanced grammar and composition, including analysis of style.

420 THE AGE OF ENLIGHTENMENT**3 sem. hrs.**

Intensive and critical study in French of the major authors and works of the eighteenth century.

430 REALISM AND NATURALISM**3 sem. hrs.**

A detailed analysis of French literature of the nineteenth century, including the works of such authors as Flaubert, Zola, and Maupassant.

431 LE SYMBOLISME ET LE PARNASSE**3 sem. hrs.**

A detailed study of French poetry in the late nineteenth century.

German Courses**302 GOETHE****3 sem. hrs.**

Reading and discussion of a number of major works, with emphasis on the drama. Prerequisite: Two courses beyond German 116.

303 SCHILLER**3 sem. hrs.**

Reading and discussion of a number of major works, with emphasis on the drama. Prerequisite: Two courses beyond German 116.

309 GERMAN PHONETICS**2 sem. hrs.**

Scientific approach to German pronunciation; correct formation of German sounds; practical application of theory of phonetics to teaching. Prerequisites: Two courses in German literature.

313 ADVANCED GERMAN COMPOSITION AND CONVERSATION**2 sem. hrs.**

Free discussion of topics of contemporary interest; oral and written themes based on class discussions. Prerequisite: German 213 or consent of department chairperson.

318 GOETHE'S FAUST**3 sem. hrs.**

A critical study of Parts I and II of Faust as an expression of Goethe's philosophy. Lectures, readings, and reports. Prerequisites: Two courses in German beyond 116.

332 GERMAN LYRIC POETRY**2 sem. hrs.**

Reading and interpretation of German lyric poetry from 800 A.D. to the present. Prerequisite: German 116 or consent of department chairperson.

385 SELECTED TOPICS IN GERMAN LITERATURE**3 sem. hrs.**

Intensive study of a genre, group of authors, or a single major writer in German literature. Prerequisite: Two courses in German literature. Provided different material is covered, the course may be taken for credit more than once.

424 STUDIES IN THE GERMAN LANGUAGE**3 sem. hrs.**

Advanced study in selected areas of German language or linguistics. May be repeated if content is different.

434 STUDIES IN THE GERMAN NOVEL**3 sem. hrs.**

Advanced study in selected works, authors and topics from the German novel. May be repeated if content is different.

444 STUDIES IN THE GERMAN DRAMA**3 sem. hrs.**

Advanced study in selected works and topics from the German Drama. May be repeated if content is different.

454 STUDIES IN GERMAN CULTURE AND CIVILIZATION**3 sem. hrs.**

Advanced study of German-language literary and non-literary texts illuminating various areas of German thought, culture, and social background. May be repeated if the content is different.

Spanish Courses**305 CURRENT TOPICS IN HISPANIC CIVILIZATION AND CULTURE****3 sem. hrs.**

Study of recent trends, issues and changes in the Spanish-speaking world. Varying topics and pedagogical strategies for teaching culture.

309 SPANISH PHONETICS**3 sem. hrs.**

Learning, using, and teaching correct Spanish pronunciation, stress, and intonation.

310 SPANISH SYNTAX**3 sem. hrs.**

A systematic and thorough study of the fundamental points of Spanish grammar and composition.

331 SPANISH-AMERICAN LITERATURE I**3 sem. hrs.**

From the Colonial period through realism.

335 MEXICAN LITERATURE (SPANISH)**2 sem. hrs.**

A survey of Mexican literature and its literary background from its beginnings to the present.

336 SELECTED TOPICS IN SPANISH-AMERICAN LITERATURE**3 sem. hrs.**

Variable topics providing in-depth study of major authors, works, genres, themes or movements. May be repeated with different content.

337 SELECTED TOPICS IN MODERN PENINSULAR SPANISH LITERATURE**3 sem. hrs.**

Major authors, genres or movements from Spanish literature of the 18th, 19th and 20th centuries. May be repeated with different content.

338 SELECTED TOPICS IN MEDIEVAL SPANISH LITERATURE AND CULTURE**3 sem. hrs.**

Major authors, genres, or periods from Spanish literature of the Middle Ages, studied in cultural context. May be repeated with different content.

339 SELECTED TOPICS IN SPANISH GOLDEN AGE LITERATURE AND CULTURE**3 sem. hrs.**

Study of major authors, works, genres, or movements from the Spanish Golden Age (1469-1700) in their historical cultural context. May be repeated with different content.

372 SPANISH DRAMA OF THE GOLDEN AGE**3 sem. hrs.**

Reading and discussion of selected plays from the great dramatists of Spain's Golden Age.

385 SELECTED TOPICS IN SPANISH LITERATURE**3 sem. hrs.**

Intensive study of a genre, movement, author, or work. This study varies each semester. May be repeated with different content.

411 SPANISH-AMERICAN NOVEL**3 sem. hrs.**

The Spanish-American novel of the nineteenth and twentieth centuries with emphasis on the most characteristic author of each period.

414 STUDIES IN SIXTEENTH-CENTURY SPANISH LITERATURE**3 sem. hrs.**

In-depth study of major authors, works, genres, themes or movements of this century. Either seminar or survey format. May be repeated with different content.

415 STUDIES IN SEVENTEENTH-CENTURY SPANISH LITERATURE**3 sem. hrs.**

Advanced study of representative authors and genres, with emphasis on the theater and the novel. May be repeated with different content.

418 STUDIES IN EIGHTEENTH-AND NINETEENTH-CENTURY SPANISH LITERATURE**3 sem. hrs.**

In-depth study of major authors, works, genres, themes or movements from Spanish literature of the 18th and 19th centuries. Either seminar or survey format. May be repeated with different content.

421 HISTORY OF THE SPANISH LANGUAGE**3 sem. hrs.**

The historical development of the Spanish language with particular attention to its phonology and morphology.

431 STUDIES IN EARLY SPANISH-AMERICAN LITERATURE**3 sem. hrs.**

In-depth study of major themes of entire literature first introduced in chronicles, travel books and poetry between 16th and 18th centuries. May be repeated with different content.

434 STUDIES IN MODERN SPANISH-AMERICAN LITERATURE**3 sem. hrs.**

In-depth study or comparative analysis of figures, works, or genres of the 19th or 20th centuries. Seminar or survey format. May be repeated with different content.

466 PICARESQUE NOVEL**3 sem. hrs.**

A study of the Picaresque novel and its influence on modern world literature.

470 DON QUIXOTE**3 sem. hrs.**

Reading of Don Quixote with special attention to the problems of interpretation and literary criticism.

484 STUDIES IN TWENTIETH-CENTURY SPANISH LITERATURE**3 sem. hrs.**

A study of the twentieth century novel, essay, poetry, or drama. May be repeated with different content.

GEOGRAPHY-GEOLOGY (GEO)

Chairperson: Michael Sublett. Office: Schroeder Hall 206.
Graduate Faculty: P. Anderson, R. Hart, J. Kirchner, P. Mattingly, E.J. Miller, R. Nelson, T. Searight, M. Sublett, W. Walters.

Note: Graduate degrees are not granted in the Department of Geography-Geology, but course work is available as supplemental study or as electives.

Courses

300 CARTOGRAPHY

3 sem. hrs.

Theory and techniques regarding graphic representation of statistical data, including compilation, drafting, and reproduction of various types of thematic maps. Field trip and drafting supplies required.

302 COMPUTER CARTOGRAPHY

3 sem. hrs.

The application of the computer to contemporary cartography. Packaged software and student-generated programs are used to investigate various spatial problems. Prerequisite: GEO 300.

305 REMOTE SENSING I

3 sem. hrs.

Basic principles of image interpretation with photogrammetry. Techniques and measurements in remote sensing. Field trip required.

306 REGIONAL AND AREA STUDIES

1-9 sem. hrs.

Intensive on-site study of particular lands environments, cultures, and people.

308 QUANTITATIVE METHODS IN GEOGRAPHY

3 sem. hrs.

Use and interpretation of basic statistical techniques in geographical problems.

310 FIELD GEOGRAPHY

3 sem. hrs.

Techniques for the systematic acquisition and interpretation of geographic field data. Includes an introduction to Orienteering. Field work required.

315 SEMINAR IN GEOGRAPHY

2 sem. hrs.

Designed to acquaint the student with the career opportunities and subfields of geography. Senior standing required.

320 RURAL LAND USE AND AGRICULTURAL GEOGRAPHY

3 sem. hrs.

Spatial aspects of agriculture: regionalization, distribution, and theories of location relating to crop and livestock production and other rural land uses. Individualized instruction. Prerequisite: GEO 150.

330 TRANSPORTATION AND COMMUNICATION

3 sem. hrs.

Geographic analysis of systems of spatial interaction including influence of transportation on industrial location and regional development.

333 LOCATIONAL ANALYSIS

3 sem. hrs.

Geographic location theory and spatial analysis applied to problems in retailing, wholesaling, and industrial activities. Recommended: MAT 110 or MAT 120.

336 URBAN GEOGRAPHY

3 sem. hrs.

Internal morphology, external relationships, and other spatial aspects of cities.

338 LIFE AND LANDSCAPE

3 sem. hrs.

Cultural landscapes and folklife in North America and Western Europe. Field work required. Individualized instruction. Prerequisite: GEO 135.

345 PROBLEMS IN CONSERVATION AND OUTDOOR RECREATION

3 sem. hrs.

Investigation of specific problems in conservation and resource use including outdoor recreational resources. Prerequisite: GEO 205.

350 URBAN PHYSICAL ENVIRONMENTS

3 sem. hrs.

An examination of urbanization-caused changes in various physical systems. Field work required. Prerequisite: GEO 201; GEO 370 recommended.

351 CARTOGRAPHIC PROCESSES

3 sem. hrs.

Techniques of design, production and reproduction of maps, including multi-separations, scribing, darkroom techniques and materials, and color proofing. Drafting supplies and A or B in GEO 300 required. Materials charge optional.

355 REMOTE SENSING II: IMAGE INTERPRETATION AND ANALYSIS

3 sem. hrs.

Investigation of major spectral bands employed in remote sensing technology. Applications to subfields are studied through manual and digital image analysis. Field trip required. Prerequisite: GEO 305.

360 GROUNDWATER GEOLOGY

3 sem. hrs.

Groundwater occurrence and movement, aquifer evaluation, field and lab measurements, contamination and other applications. Field trips required. Prerequisite: GEO 105 and 109; MAT 110 or equivalent.

362 ENGINEERING GEOLOGY

3 sem. hrs.

Engineering applications of geology, construction problems of geologic origin and their engineering solutions. Field trips required. Prerequisites: GEO 105 and 109; PHY 108, MAT 110 or equivalent.

364 GEOPHYSICS

3 sem. hrs.

Principles of geophysics and systems of measurement which are tools of exploration for geologic resources. Gravity, magnetics, seismic, electrical well logging and geothermics. Prerequisite: GEO 105, 285 and 290; MAT 110; and PHY 108 or consent of instructor.

370 URBAN AND REGIONAL PLANNING

3 sem. hrs.

Introduction to the planning process and the major elements used in plan implementation such as zoning regulations, subdivision regulations, and the official map. Field research may be required.

375 ECONOMIC GEOLOGY OF FOSSIL FUELS 3 sem. hrs.

Methods of exploration; origin, composition, accumulation, and production of petroleum; composition, classification and production of coal; world fuel resources. Prerequisite: GEO 107 and 109.

377 GEOLOGY OF ORE DEPOSITS 3 sem. hrs.

Theory of processes of ore formation, controlling factors of ore localization with case studies. Prerequisites: GEO 280, 290.

380 GEOMORPHOLOGY 3 sem. hrs.

Origin, classification, description, and interpretation of landforms. Field trip required. Prerequisite: GEO 100 or GEO 105.

382 GLACIAL AND QUATERNARY GEOLOGY 3 sem. hrs.

Development of glaciers, glacial movements, deposits, and landforms as background for discussion of present landscapes. Field trip required. Prerequisite: GEO 100 or GEO 105.

384 REGIONAL GEOLOGY OF THE UNITED STATES 3 sem. hrs.

A systematic study of the stratigraphy, structural geology, and geomorphology of the United States based on natural geologic regions. Prerequisite: GEO 107 and 109.

385 INVERTEBRATE PALEONTOLOGY 4 sem. hrs.

Examination and analysis of major fossil invertebrate phyla; emphasis on groups with paleoecologic and stratigraphic significance. Prerequisites: GEO 107 and 109. BSC 194 recommended.

386 MICROPALAEONTOLOGY 4 sem. hrs.

Study of calcareous, siliceous and phosphatic microfossil groups with emphasis on their structure, classification, ecologic/paleoecologic and time-stratigraphic utility. Prerequisite: GEO 385.

390 OPTICAL MINERALOGY 4 sem. hrs.

Optical theory and techniques in the use of the petrographic microscope; optical identification of minerals using oil immersion and thin section methods. Prerequisite: GEO 280.

395 FIELD GEOLOGY 6 sem. hrs.

Application of geologic principles to field mapping and interpretation in the Black Hills and Central Rocky Mountains. Offered in the summer only, through the College of Continuing Education. Prerequisites: GEO 280, 285, 290 and 295.

498 PROFESSIONAL PRACTICE IN APPLIED GEOGRAPHY 1-8 sem. hrs.

Planned, supervised, professional experience in a public or private organization. Forty hours of practice per credit hour. Prerequisites: 15 graduate hours, graduate GPA 3.2, and consent of dept. chairperson.

HISTORY (HIS)

Acting Chairperson: Mark A. Plummer. Office: Schroeder Hall 334.

Graduate Faculty: R. Austensen, R. Champagne, I. Cohen, D. Davis, C. Ekberg, J. Freed, J. Grabill, W. Haddad, M.P. Holsinger, N. Holt, G. Homan, D. MacDonald, A. Malone, L. McBride, M. Plummer, J. Rayfield, E. Reitan, E. Schapsmeier, K. Sessions, L. M. Simms, Jr., L. Walker, W. Wyman.

The department offers work leading to the following degrees: M.A., M.S., D.A. University requirements for these degrees are listed elsewhere in this catalog. Note, however, that besides the Aptitude Test of the GRE, the Department also requires the Advanced Test in the student's field of study. Additionally, the Departmental requirements are as follows:

Master's Degree in History

The Master's degree in History requires 32 or 39 semester hours of graduate credit in History and such related subjects as the graduate student adviser recommends. A student who chooses to emphasize U.S. History must earn at least five semester hours of graduate credit in History other than U.S. History. A student who chooses to emphasize Western Civilization or the Non-Western World must earn at least five semester hours of graduate credit in U.S. History. A student who chooses to emphasize historical archeology or other public history fields needs not take the required hours of graduate credit in another field of history, but will take courses in anthropology, archeology, geography, museum studies, or such other subjects as the student's committee shall recommend. At least 16-18 semester hours of credit must be at the 400 level. (18 hours if the 39 hour option is selected.) These 16-18 semester hours do not include HIS 499 (Thesis). HIS 497 is required of all students, and if possible should be taken in the first semester of graduate study.

A student may choose one of the following three options: (1) writing a master's thesis; (2) taking a comprehensive examination; and (3) a 39-hour program. A student may receive up to six semester hours of credit for a master's thesis; these six hours are included in the 32 hour requirement. Preparation of a master's thesis is of advantage to students who expect to work toward doctoral degrees. The student who chooses the comprehensive examination will take the examination upon completion of the required 32 semester hours of course work. This student is also required to submit two revised seminar papers for evaluation and approval by the Graduate Faculty at the time of the comprehensive examination. The student who chooses the 39 semester hour program is required to take HIS 496. If possible, this synthesizing experience should be taken in the last semester of graduate work. Also two revised seminar papers must be submitted for evaluation and approval by the Graduate Faculty.

Students wishing an emphasis in teaching may elect, in consultation with the graduate advisor, to take advanced courses in education as part of their hours for a master's degree in history.

Doctor of Arts

The Doctor of Arts in History is offered to persons seeking advanced training for teaching and curriculum leadership in colleges, community colleges, or high schools. Entry

into the program requires a master's degree and successful teaching experience. A public history emphasis is also available for those who wish to apply historical expertise outside the classroom. The program includes the following course requirements: (a) Core Courses (HIS 496, 501, 505, 506); (b) 16 semester hours in the major field in History; (c) 8 semester hours in the minor field in History or related subject; and (d) 6 semester hours in Professional Studies in Education including EAF 410 or its equivalent. A comprehensive oral and written examination follows completion of all course work. The final requirement of the program is a dissertation (15 semester hours). A dissertation may be primarily concerned with the investigation of a historical topic, with one or more chapters showing how the material may be used in the classroom, or it may be primarily concerned with teaching or curriculum development. Although the degree of emphasis may vary from one dissertation to another, all dissertations should demonstrate competence both in dealing with historical material and its application in or outside the classroom. The normal residence requirement is one year, but commuter students who make continuing progress in the program may have the residence requirement reduced to one semester. For additional information, write to the Chairperson, Department of History, Illinois State University.

Courses

306 REGIONAL AND AREA STUDIES 1-9 sem. hrs.

Intensive study of particular lands, environments, cultures, and peoples. Usually given cooperatively with other departments. Prerequisite: Consent of instructor.

311 AGE OF THE AMERICAN REVOLUTION 3 sem. hrs.

The emergence of the United States as an independent nation from 1763 to the Constitutional Convention in 1787.

315 SLAVERY AND THE OLD SOUTH 3 sem. hrs.

Historiography of slavery and the pre-Civil War South.

320 LINCOLN: THE MAN AND HIS TIMES 3 sem. hrs.

Attention directed especially toward the work of Lincoln in Illinois, his leadership during the Civil War, and his relationship with people and events of his time.

321 GREAT FIGURES OF AMERICAN HISTORY 3 sem. hrs.

Personalities selected from American History with emphasis on the contributions and lasting influence of significant individuals.

322 AMERICAN URBAN HISTORY 3 sem. hrs.

Survey of the history of the American city from 1820 to the present.

323 AMERICAN CULTURAL AND INTELLECTUAL HISTORY I 3 sem. hrs.

American progress in the fine arts, philosophy, literature, and science from Puritan times to 1860.

324 AMERICAN CULTURAL AND INTELLECTUAL HISTORY II 3 sem. hrs.

The impact of naturalism, industrialization, secularization, and urbanization upon American culture since 1860.

325 PROBLEMS IN TWENTIETH-CENTURY UNITED STATES CONSTITUTIONAL HISTORY 3 sem. hrs.

An examination of major problems in American constitutional history since the Progressive Era: civil rights, freedom of speech and religion, federal-state relations.

326 PROBLEMS IN UNITED STATES ECONOMIC HISTORY 3 sem. hrs.

Considers contrasting views on major issues in the economic history of the United States as a colony, an agrarian republic, and an industrial state.

327 AMERICAN LABOR HISTORY 3 sem. hrs.

The Industrial Revolution's impact upon workers, with emphasis on the responses through unions and politics and on the role of government.

330 THE FAMILY IN HISTORY 3 sem. hrs.

History of the family in Europe and America, viewing the changes from idealist, economic determinist, family systems, and psychoanalytic perspectives.

341 EUROPEAN INTELLECTUAL HISTORY TO 1600 3 sem. hrs.

The study of the ideas of the ancient world, Middle Ages, Renaissance, Reformation, examined in a social, political, and economic context.

342 EUROPEAN INTELLECTUAL HISTORY SINCE 1600 3 sem. hrs.

A study of the ideas of the scientific revolution, enlightenment, nineteenth century and twentieth century examined in a social, political, and economic context.

343 MODERN EUROPEAN DIPLOMATIC HISTORY I, 1789-1890 3 sem. hrs.

The diplomatic history of Europe from the French Revolution to the fall of Bismarck.

344 MODERN EUROPEAN DIPLOMATIC HISTORY II, 1890 TO PRESENT 3 sem. hrs.

The diplomatic history of Europe from the fall of Bismarck in 1890 to the present.

345 FRENCH REVOLUTION AND NAPOLEON, 1789-1815 3 sem. hrs.

Society, culture, and government under the monarchy; destruction of the old order; rise and fall of Napoleonic France. Formerly FRENCH REVOLUTION NAPOLEONIC ERA, 1789-1815.

351 ANCIENT NEAR EAST 3 sem. hrs.

Study of the civilizations of Mesopotamia and Egypt from the neolithic period to 500 B.C.

355 POPULAR CULTURE IN EARLY MODERN EUROPE 3 sem. hrs.

History of the culture of the common population of Europe 1400-1800: Pre-conditions, formation, principal elements, decline of the culture.

356 THE ENLIGHTENMENT**3 sem. hrs.**

Intellectual and social history of the western world during the eighteenth century.

361 EIGHTEENTH-CENTURY BRITAIN, 1689-1815**3 sem. hrs.**

Britain from the Revolution of 1688-89 through the early Industrial Revolution and Napoleonic wars.

362 MODERN BRITAIN, 1815 TO THE PRESENT**3 sem. hrs.**

A general survey of British history in the nineteenth and twentieth centuries.

365 NAZI GERMANY 1933-1945**3 sem. hrs.**

Reading, discussion, and research in the major books and articles in the field.

366 SOVIET RUSSIA, 1917 TO THE PRESENT**3 sem. hrs.**

An evaluation of the origins and rise of Bolshevik power, concentrating on economic, cultural, and social developments.

373 HISTORY OF MODERN CHINA**3 sem. hrs.**

Concentrates on the Western and Chinese collision since the 1800's and the responses of traditional, national, and contemporary China to modernization.

375 HISTORY OF MODERN JAPAN**3 sem. hrs.**

Concentrates on Japan's modernization, goals of Meiji leaders, contradictory tendencies of pre-war Japan, and contemporary Japan.

377 THE HISTORY OF THE ARAB-ISRAELI CONFLICT**3 sem. hrs.**

Historical analysis of the conflict between Arabs and Israelis emphasizing the roles of religion, nationalism, superpowers, and war.

378 ISLAM**3 sem. hrs.**

In-depth study of Islam, focusing on ideas rather than events. Topics include law, mysticism, art and resurgent Islam.

390 SOCIAL STUDIES TEACHING METHODOLOGY II**3 sem. hrs.**

Examination of social studies project materials, use of instructional models, and clinical experiences. Must be completed prior to student teaching. Prerequisites: HIS 290 and C&I 200 (6 hrs.) or 200.03 (2 hrs. grade of C or better) or 215 (2 hrs.), concurrent registration and admission to Teacher Education. Includes clinical experiences.

394 ORAL HISTORY**3 sem. hrs.**

The comprehensive study and use of oral history as a research tool, and its application as a teaching technique.

395 ARCHIVES AND MANUSCRIPTS**3 sem. hrs.**

Nature, acquisition, processing, and use of archives and manuscripts. Emphasis on theory and principles with practical exercises.

402 SEMINAR IN EUROPEAN HISTORY**4 sem. hrs.****411 SEMINAR: EIGHTEENTH-CENTURY AMERICA****4 sem. hrs.****412 SEMINAR: THE AGE OF JACKSON****4 sem. hrs.****414 SEMINAR: CIVIL WAR AND RECONSTRUCTION****4 sem. hrs.****417 SEMINAR: TWENTIETH-CENTURY AMERICA****4 sem. hrs.****424 SEMINAR: AMERICAN CULTURAL AND INTELLECTUAL HISTORY****4 sem. hrs.****428 SEMINAR: AMERICAN DIPLOMACY****4 sem. hrs.****432 RESEARCH PROBLEMS IN LOCAL HISTORY****4 sem. hrs.****441 SEMINAR: EUROPEAN INTELLECTUAL HISTORY****4 sem. hrs.****453 SEMINAR: THE REFORMATION****4 sem. hrs.****461 SEMINAR: EIGHTEENTH-CENTURY BRITAIN****4 sem. hrs.****468 SEMINAR: MODERN RUSSIA****4 sem. hrs.****477 SEMINAR: THE CONTEMPORARY MIDDLE EAST****4 sem. hrs.****496 PHILOSOPHY OF HISTORY AND HISTORIOGRAPHY****4 sem. hrs.**

Examination of the philosophical bases for historical study with review of the development of historical knowledge and the historical profession.

497 INTRODUCTION TO RESEARCH METHODOLOGY**3 sem. hrs.**

Selection of a research problem, collection of data, types of research, the research report, and use of the library in connection with the research problem. Emphasis on understanding and interpreting frequently used statistical concepts. Provides a background for the preparation of the thesis. Enables the student to become an intelligent consumer of the products of educational research.

498 PROFESSIONAL PRACTICE: PUBLIC/APPLIED HISTORY**1-12 sem. hrs.**

Supervised practical experience in a professional capacity in archives, business, government, historic preservation, historical archeology, historical editing, historical society or museum work.

499 MASTER'S THESIS**1-6 sem. hrs.****501 INTERPRETIVE PROBLEMS IN TEACHING HISTORY****4 sem. hrs.**

Examination of selected problems of historical interpretation with special emphasis upon their use in history teaching. For doctoral students or consent of instructor.

505 SEMINAR AND PRACTICUM IN HISTORY TEACHING**4 sem. hrs.**

Involves students in analyzing and evaluating teaching and research findings, examining alternative goals and teaching methods, and preparing model instructional units. For doctoral students or consent of instructor.

506 RESEARCH-INTERNSHIP IN THE TEACHING OF HISTORY**4 sem. hrs.**

Involves students in analysis of research findings, a teaching internship, and planning a dissertation proposal. For doctoral students or consent of instructor.

599 DOCTORAL DISSERTATION
Variable Credit**MATHEMATICS (MAT)**

Chairperson: Jane Swafford. Office: Stevenson Hall 313.
Graduate Faculty: K. Berk, L. Brown, R. Charles, J. Dossey, O. Edge, S. Friedberg, K. Ha, R. Hathway, A. Insel, K. Jinadasa, C. Morris, P. O'Daffer, A. Otto, J. Parr, M. Plantholt, K. Retzer, R. Ritt, L. Sennott, T. Shilgalis, L. Spence, J. Swafford, A. Thompson, P. Thompson, C. Thornton, S. Tipnis, C. Vanden Eynden, B. Wilmot.

Programs Offered

The Department of Mathematics offers varied programs leading to the Master of Arts, Master of Science and Doctor of Arts degrees. At the master's level, a Sequence in Mathematics Education is available, along with concentrations in pure mathematics, statistics, computational mathematics, and applied mathematics. A doctoral program is offered to persons seeking advanced training for teaching in two-year and four-year colleges. Teaching assistantships and instructorships are available.

Master's Degree Programs

The student must meet the general university requirements listed elsewhere in this catalog for either the Master of Arts or Master of Science degree. In addition, the student must complete one of the two options in pure and applied mathematics or one of the two options in the Sequence in Mathematics Education. The Graduate Record Examination General (Aptitude) Test or the Advanced Test in Mathematics is required for admission.

Options in Pure and Applied Mathematics

Two options, requiring 39 and 32 hours, are available. Entering students must have completed an undergraduate mathematics major. Before completion of the master's degree, the student must complete MAT 337 and 347. A student must also select and complete either of the following two options:

Option I: At least 30 of the 39 hours required must be in mathematics. At least 18 of the 39 hours must be at the 400 level, with at least 12 of these in mathematics, including at least one course in algebra or analysis. Neither a thesis nor a comprehensive examination is required, but the student must maintain a 3.2 grade point average.

Option II: At least 24 of the 32 hours required must be in mathematics. At least 15 of the 32 hours must be at the 400 level, with at least 10 of these in mathematics. One of the following is required: a written examination over two areas, one of which must be algebra or analysis, or an oral presentation on a topic the student has investigated under the direction of a faculty member.

Areas of Concentration

There is considerable room for flexibility in selection of elective courses. The Graduate Advisor will assist students in selecting electives in the following areas of concentration:

Further graduate work in mathematics: 349, 407, 408, 447, 448, 449, 475, 476.

Statistics: 351, 356, 368, 450, 452, 453, 455, 456, 458.

Computational mathematics: 356, 360, 361, 363, 366, 368, 370.

Applied mathematics: 340, 341, 345, 349, 356, 360, 361, 362, 363, 366, 368, 370, 378.

Other courses not yet listed in this catalog are also available. Contact the Graduate Advisor.

Sequence in Mathematics Education

Individuals who are teaching or who plan to teach in public and private schools may wish to complete one of the two options in the Sequence in Mathematics Education. A program for each entering student will be designed in consultation with the graduate advisor to bring the student's credentials in content and methodology to a level appropriate for the needs of the student and the demands of the teaching profession. Students entering the Sequence in Mathematics Education must have completed an undergraduate program in mathematics appropriate for their level of emphasis. Each student electing this sequence must complete MAT 401 and 403. In addition, persons pursuing an emphasis in elementary or junior high school mathematics must complete MAT 304, 305, and 402. Persons pursuing an emphasis in secondary school mathematics must complete MAT 337, 347, either 336 or 407, and three mathematics courses numbered 407 or above. One of the following options must be selected and completed:

Option I: At least 30 of the 39 hours required must be in mathematics. In addition, at least 18 of the 39 hours must be taken at the 400 level, including at least 12 in mathematics. As a culminating experience, the student must conduct a research project and report the results in a colloquium. This project, which will be completed under the supervision of a graduate faculty member, must relate to the teaching of school mathematics and reflect the integration of mathematics teaching methods and mathematics content.

Option II: At least 24 of the 32 hours required must be in mathematics. In addition, at least 15 of the 32 hours must be taken at the 400 level, including at least 10 in mathematics. As a culminating experience, the student must complete either a written comprehensive examination or an approved thesis with no more than six hours of credit in Mathematics 499.

The Mathematics Department also cooperates with the Department of Curriculum and Instruction in the design of programs for elementary, junior high, and secondary teachers who elect the Master of Science in Education.

Doctor of Arts Program

A doctoral program is offered to persons seeking advanced training for teaching in a two-year or four-year college. Admission to the program ordinarily requires previous successful teaching experience and a level of mathematical training equivalent to a Master's degree in mathematics or mathematics education.

Candidates for admission who do not meet these requirements or whose career objective is related to teaching in other settings will be considered on an individual basis. Each candidate will be expected to complete a dissertation which is original and has relevance to the profession of teaching in the community college. The prospectus for the dissertation can be officially considered and accepted by the department only after the student has passed the qualifying evaluation; to pass this evaluation each student must demonstrate substantial competence in 1) algebra, 2) real analysis, 3) geometry/topology, 4) mathematics education. This competence will be demonstrated in algebra, analysis, and mathematics education by the successful completion of an oral examination in each area. Competence in the geometry/topology area may be shown by either of two methods: a) completion of the two courses elected in Area 3 with grades of A, or b) successful completion of a written or oral examination over the contents of the two courses selected from Area 3. The qualifying evaluation requirements must be satisfied within a two-year period which commences with the first exam. A student will be allowed one re-examination in, at most, two of the four areas. A breadth of background including some mathematics applications will also be required.

Courses

301 MATHEMATICAL TOPICS FOR ELEMENTARY TEACHERS 3 sem. hrs.

Significant problems, viewpoints, and trends in teaching of arithmetic. Research related to organization, content, and techniques in this field. Prerequisite: MAT 152 or 202. Not for major/minor credit. May include clinical experiences. Materials charge optional.

302 METHODS OF TEACHING MATHEMATICS IN THE JUNIOR HIGH 3 sem. hrs.

Problems, viewpoints, and trends in teaching junior high school mathematics. Implications of research related to organization, content and techniques for teaching mathematics in this field. Prerequisite: MAT 202 or teaching experience required. Not for major/minor credit. Materials charge optional.

303 DIAGNOSIS AND REMEDIATION OF ELEMENTARY AND JUNIOR HIGH MATH LEARNING PROBLEMS 3 sem. hrs.

Analysis of diagnostic and remediation procedures utilizing concrete materials for children experiencing difficulties in K-8 school mathematics. Prerequisites: MAT 152, 202, or teaching experience. C&I 252 or MAT 201 or 202 recommended. Materials charge optional. Includes clinical experience. Not for major/minor credit.

304 ADVANCED TOPICS IN GEOMETRY AND MEASUREMENT FOR ELEMENTARY AND JUNIOR HIGH SCHOOL TEACHERS 3 sem. hrs.

Geometry and measurement topics related to the elementary and junior high school curricula. Prerequisites: MAT 152 or 202 or 204, and high school geometry. Materials charge optional.

305 ADVANCED TOPICS IN ALGEBRA FOR ELEMENTARY AND JUNIOR HIGH SCHOOL TEACHERS 1-3 sem. hrs.

Algebra and counting topics related to elementary and junior high school curricula. Prerequisite: MAT 205 or teaching experience. Not for major/minor credit. Materials charge optional.

306 TEACHING ELEMENTARY AND JUNIOR HIGH SCHOOL MATHEMATICS USING CALCULATORS AND COMPUTERS 3 sem. hrs.

Techniques for using calculators and microcomputers for mathematical concept and skill development and discovery of mathematical generalizations in the elementary and junior high school. Prerequisite: MAT 151 or 202 or teaching experience required. Not for major/minor credit. Materials charge optional.

307 MATHEMATICS FOR THE GIFTED IN THE ELEMENTARY AND JUNIOR HIGH SCHOOL 2-3 sem. hrs.

Mathematics content, methods, and program design for meeting needs of students with high ability in mathematics. Prerequisite: MAT 152 or 202 or teaching experience. Not for major/minor credit. Resource materials charge optional.

308 MATHEMATICS FOR THE SLOW LEARNER IN THE ELEMENTARY AND JUNIOR HIGH SCHOOL 2 sem. hrs.

Characteristics/causes of slow learners/underachievers in mathematics. Mathematics content, methods, materials and program design for meeting needs of the slow learners. Prerequisite: MAT 151 or 202 or teaching experience. Resource materials charge optional.

309 PROBLEM SOLVING IN THE ELEMENTARY AND JUNIOR HIGH SCHOOL 3 sem. hrs.

Techniques and strategies for improving problem solving abilities. Goals, instructional materials, program development, teaching techniques and evaluation of problem solving in school mathematics. Prerequisite: MAT 151 or teaching experience required. Not for major/minor credit.

311 LOGO IN TEACHING ELEMENTARY AND JUNIOR HIGH MATHEMATICS 3 sem. hrs.

Techniques for using the programming language Logo to develop concepts in elementary and junior high mathematics. Prerequisites: MAT 151, 152 or 202, and MAT 204 required. Not for credit major/minor. Materials charge optional.

320 HISTORY OF MATHEMATICS TO 1600 2 sem. hrs.

Emphasis on Greek geometry, and growth of algebra and algebraic notation from early Mesopotamia through Renaissance. Prerequisite: MAT 145 recommended.

321 HISTORY OF MATHEMATICS, 1600 TO PRESENT**2 sem. hrs.**

Development of modern mathematics (analysis algebra, geometry) and the people in the forefront, beginning with Descartes. Emphasis on 19th century. Prerequisite: MAT 147.

323 MATHEMATICS FOR THE SECONDARY SCHOOL**3 sem. hrs.**

Problems in selection, placement, and teaching of secondary mathematics topics. Language and symbolism. Analysis of recent trends and practices. Includes clinical experiences. Prerequisites: MAT 211 and 216 or concurrent registration and C&I 200.03 or 215.

326 COMPUTER-EXTENDED MATHEMATICS FOR SECONDARY SCHOOLS**3 sem. hrs.**

Techniques of illustrating, deriving, and discovering mathematical concepts of the secondary curriculum by digital computer and calculators. Prerequisites: Calculus and BASIC programming.

330 NUMBER THEORY**3 sem. hrs.**

Divisibility, primes, unique factorization, numerical functions, congruences, Diophantine equations, other topics. Prerequisite: MAT 175 or 205. Formerly MAT 310.

334 TOPICS IN GEOMETRY**3 sem. hrs.**

Study of selected areas of geometry. Topic 314.03 Introduction to differential geometry. Consult the *Class Registration Directory* for the topics to be offered during any given semester. Prerequisite: Consent of instructor. Formerly MAT 314.

336 INTRODUCTION TO ABSTRACT ALGEBRA II**3 sem. hrs.**

Introduction to groups, including permutation, symmetry and matrix groups, homomorphisms, normality, quotient groups, applications. Prerequisite: MAT 175, MAT 216 recommended. Formerly MAT 316.

337 LINEAR ALGEBRA**4 sem. hrs.**

Abstract vector spaces, linear transformations and matrices, inner product spaces, eigenvalues and eigenvectors, diagonalization. Applications to geometry, the physical and social sciences. Prerequisite: MAT 175. Formerly MAT 317.

339 COMBINATORIAL TOPOLOGY**3 sem. hrs.**

Introduction to algebraic topology. Topics include compactness and connectedness, continuous vector fields and critical points, plane homology, the Jordan Curve Theorem, and surfaces. Prerequisite: MAT 147, and 175 recommended. Formerly MAT 319.

340 DIFFERENTIAL EQUATIONS I**3 sem. hrs.**

First order differential equations, linear differential equations, systems of linear equations, numerical solutions. Prerequisites: MAT 147 and a programming language. MAT 175 recommended.

341 DIFFERENTIAL EQUATIONS II**3 sem. hrs.**

Series solutions, Laplace transform, theory of first-order equations, theory of linear differential equations, Sturm theory, Fourier series, boundary-value problems, introduction to partial differential equations (Laplace, heat, and wave equations). Prerequisites: MAT 175 and 340.

345 ADVANCED CALCULUS**4 sem. hrs.**

Calculus of functions of several variables; Taylor's series of several variables, maxima and minima, Lagrange multipliers, inverse and implicit function theorems, multiple integration, line integrals, Green's and Stokes' theorems. Prerequisite: MAT 175.

347 INTRODUCTION TO REAL ANALYSIS I**4 sem. hrs.**

The real number system, topology of metric spaces, sequences, continuous functions, uniform convergence, differentiation, Taylor's Theorem, Riemann integration, the fundamental theorem of calculus, infinite series, power series. Prerequisite: MAT 147 and 175 recommended.

349 COMPLEX ANALYSIS I**3 sem. hrs.**

Analytic function theory, complex plane, differentiability and analyticity, Cauchy's theorem. Taylor series and Laurent series. Prerequisite: MAT 147.

350 MATHEMATICAL STATISTICS I**4 sem. hrs.**

Sample spaces, probability, random variables, probability density functions, moment generating functions, empirical distributions, sampling distribution theory, confidence intervals, maximum likelihood estimation, applications. Prerequisite: MAT 147 or concurrent registration.

351 MATHEMATICAL STATISTICS II**4 sem. hrs.**

Chi-square, F, t, and bivariate normal distributions; Central Limit Theorem; goodness-of-fit tests; correlation and regression; analysis of variance; randomized block designs; nonparametric methods. Prerequisites: MAT 147 and 350.

353 THE ANALYSIS OF TIME SERIES**3 sem. hrs.**

Theory of and applications of time series methods with special reference to business and economic time series. Topics include classical decomposition methods, Box-Jenkins methods, spectral analysis, and robust methods. Practical application is obtained through the use of mainframe and microcomputer statistical packages. Prerequisites: ECO 331, MAT 350 or consent of instructor. Also offered as ECO 353.

356 STATISTICAL COMPUTING**4 sem. hrs.**

The application of the SAS, SPSS, and BMDP programs to real data, emphasizing regression, analysis of variance, discriminant analysis, and factor analysis. Prerequisites: Two statistics courses, some facility with matrices.

360 COMBINATORIAL COMPUTING**4 sem. hrs.**

Listing and ranking algorithms for permutations; recurrence relations, generating functions, graph theory, optimization, Polya's Theorem. Prerequisite: MAT 175; MAT 164 or ACS 164 or 168.

361 TOPICS IN DISCRETE MATHEMATICS**2-4 sem. hrs.**

Study of selected areas of discrete mathematics. Topic 361.02 Game Theory; Topic 361.04 Dynamic Program-

ming. Consult the **Class Registration Directory** for the topics to be offered and the hours of credit to be earned during any given semester. Each topic may be taken once. Prerequisite: MAT 175.

362 LINEAR PROGRAMMING
2-4 sem. hrs.

Modeling and solution of problems using the simplex method. Duality, sensitivity, integer programming. Transportation problems. Prerequisites: MAT 175 and a programming language.

363 GRAPH THEORY
2-4 sem. hrs.

Introduction to graph theory, connectivity, matching, coloring, network flows with applications to communication reliability, scheduling, and traffic flow problems. Prerequisites: MAT 175 and a programming language.

366 BOOLEAN ALGEBRA AND LOGICAL DESIGN
3 sem. hrs.

Switching circuits, Boolean algebra as model for propositional calculus, logical design of digital computers, logical programming. Prerequisite: MAT 175 recommended.

368 NUMERICAL MATRIX METHODS
3 sem. hrs.

Computational theory of matrices, matrix operations, inversion, solution to linear systems, error analysis, eigenvalues and eigenvectors, orthogonal projection, and least squares. Prerequisites: MAT 175 and a programming language.

370 NUMERICAL ANALYSIS
4 sem hrs.

Interpolation and approximation, error analysis, differentiation, integration, techniques for solving differential equations, root finding. Applications and computational techniques. Prerequisites: MAT 175 and a programming language.

378 MATHEMATICAL MODELING
4 sem. hrs.

Applications of mathematics modeling to fields including biology, economics, engineering, political science, psychology, and sociology. Project required. Prerequisites: MAT 175 and concurrently registered in MAT 340 or 350 required.

401 CURRENT RESEARCH IN SCHOOL MATHEMATICS
3 sem. hrs.

Analysis of research in mathematics education and its implications for instruction in school programs. Materials charge optional. Prerequisite: C & I 410 or consent of instructor.

402 INSTRUCTIONAL STRATEGIES FOR ELEMENTARY AND JUNIOR HIGH MATHEMATICS
3 sem. hrs.

Selecting, utilizing and evaluating instructional organization, laboratory materials and pedagogical techniques for elementary school mathematics programs. Materials charge optional.

403 THEORIES OF MATHEMATICS LEARNING
3 sem. hrs.

Overview of theories of how children learn mathematics and the implications of these theories for classroom teaching and research. Materials charge optional.

406 ADVANCED TOPICS IN DIAGNOSIS AND REMEDIATION
2-3 sem. hrs.

Analytical approaches and instructional procedures for diagnosing and treating learning difficulties in elementary school mathematics. Materials charge optional.

407 ABSTRACT ALGEBRA I
4 sem. hrs.

Group theory including the Sylow theorems and other advanced topics; ring theory. Prerequisite: MAT 336 or consent of instructor.

408 ABSTRACT ALGEBRA II
4 sem. hrs.

Modules with the canonical decomposition theorems; field and Galois theory. Prerequisite: MAT 407 or consent of instructor.

410 TOPICS IN NUMBER THEORY
3-4 sem. hrs.

Topics vary, but are often chosen from Diophantine equations, continued fractions, Diophantine approximations. Additional topics and applications will be covered in the 4-hour version. Prerequisite: MAT 330 or consent of instructor.

414 TOPICS IN ADVANCED GEOMETRY
2-4 sem. hrs.

Topics may include advanced differential geometry, combinatorial problems in geometry, convexity and Helly's Theorem, sets of constant width, isoperimetric problems, and others which may vary among different instructors. Prerequisite: Consent of instructor.

421 TOPICS IN ALGEBRA FOR TEACHERS
3 sem. hrs.

Problems in teaching of secondary school algebra. Investigation of reports, research, and recent trends in this area. Prerequisite: MAT 175 or 216.

422 TOPICS IN GEOMETRY FOR TEACHERS
3 sem. hrs.

Problems in teaching secondary school geometry. Investigation of reports, research, and recent trends. Objectives and content of secondary school geometry. Prerequisite: MAT 211.

447 REAL ANALYSIS I
4 sem. hrs.

Extension of Riemann integral; Daniell, Lebesgue and Stieltjes integrals; measure, extension of additive set functions; LP spaces; applications to analysis and probability. Prerequisites: MAT 337 and 347.

448 REAL ANALYSIS II
4 sem. hrs.

Abstract complete normed linear vector spaces and their realizations; linear operators; applications to numerical analysis, integral and differential equations. Prerequisite: MAT 447.

449 COMPLEX ANALYSIS II
4 sem. hrs.

Conformal mappings, Riemann surfaces, meromorphic functions, infinite products of holomorphic functions, and integration of differential forms. Prerequisite: MAT 347 or 349.

450 FINITE SAMPLING
3-4 sem. hrs.

Application and theory of sampling, mathematical sampling; simple, stratified, and cluster. Evaluation of plans

with respect to precision and cost. Additional topics and applications will be covered in the 4-hour version. Prerequisite: MAT 350.

452 THEORY OF STATISTICS

3-4 sem. hrs.

Order statistics, limiting distributions, sufficient statistics, likelihood ratio test, distribution of certain quadratic forms in analysis of variance. Additional topics and applications will be covered in the 4-hour version. Prerequisite: MAT 351.

453 REGRESSION ANALYSIS

3-4 sem. hrs.

Linear regression models and the F-test. Model Fitting: analysis of residuals, transformations, and the selection of variables. The analysis of variance via regression. Additional topics and applications will be covered in the 4-hour version. Prerequisites: MAT 175 and 351.

455 APPLIED STOCHASTIC PROCESSES

3-4 sem. hrs.

Processes important in numerous applications. Finite and countable state Markov chains, the Poisson process, birth-death processes, elementary queueing theory, renewal processes, and others. Prerequisite: MAT 350.

456 MULTIVARIATE STATISTICS

3-4 sem. hrs.

Review of regression and analysis of variance. The multivariate normal distribution, discriminant analysis, multivariate analysis of variance, factor analysis. Computational procedures. Prerequisites: MAT 175, 351.

458 THE DESIGN OF EXPERIMENTS

3-4 sem. hrs.

Linear models and the logic of planned experimentation, choice of statistical technique, and analysis of data. Additional topics and applications will be covered in the 4-hour version. Prerequisite: MAT 351.

475 TOPOLOGY I

4 sem. hrs.

Topological spaces and continuous functions, connectedness, separation and covering axioms. Prerequisite: MAT 347.

495 PROSEMINAR

1-3 sem. hrs.

Supervised presentation by students of recently published mathematics and discussion of problems related to reading the mathematics literature. Prerequisite: Consent of doctoral committee.

499 MASTER'S THESIS

1-6 sem. hrs.

530 MODULES IN MATHEMATICS EDUCATION

Variable credit

Modules in mathematics education including mathematics curriculum, analysis of mathematics learning, general methods of teaching mathematics, strategies for teaching mathematics, evaluation in mathematics, and diagnosis and remediation of learning difficulties in mathematics. Modules are selected in consultation with adviser. Each module carries from one to three hours of credit. Prerequisite: Approval of doctoral adviser.

581 SEMINAR IN RESEARCH AND DEVELOPMENT IN MATHEMATICS EDUCATION

3 sem. hrs.

Analysis of research in strategies or methods for teaching mathematics and in the learning of mathematics. Analysis of curriculum projects as they relate to these research

findings. Analysis of current research and consideration of the implications of this research for new curricular innovations, and for classroom teaching. Prerequisite: MAT 530 or consent of instructor.

599 DISSERTATION

Variable credit

Research, library search, curriculum study, and writing related to Doctor of Arts dissertation requirement. Prerequisites: Consent of doctoral adviser and department chairperson.

MICROBIOLOGY (See Biological Sciences)

PHILOSOPHY (PHI)

Chairperson: Kenton Machina. Office: 351 Stevenson Hall.

Graduate Faculty: M. Gorr, J. Gowen, K. Kennard, K. Machina.

Note: Graduate degrees are not granted in the Department of Philosophy, but course work is available as supplemental study or as electives.

Courses

305 TWENTIETH CENTURY PHILOSOPHY

3 sem. hrs.

Examination of major philosophical movements of the 20th century focusing on representative figures. Prerequisite: One PHI course. May be repeated if different content.

330 MORAL THEORY

3 sem. hrs.

Examination of the meaning and justification of value judgments. Problems concerning moral objectivity, the fact-value gap, the possibility of moral knowledge. Prerequisite: Two PHI courses.

339 TOPICS IN AESTHETICS

3 sem. hrs.

Philosophical questions about visual, musical, literary and theatre arts. Problems concerning expression, aesthetic experience, representation, the nature of art, and the possibility of objective evaluation of art works. No prerequisite for graduate students. May be repeated.

340 TOPICS IN POLITICAL PHILOSOPHY

2 sem. hrs.

Intensive examination of one or two selected topics in political philosophy, such as liberty, justice, equality, rights, community, democracy, political obligation. Graduate students may enroll without previous PHI courses. May be repeated.

350 TOPICS IN THE HISTORY OF PHILOSOPHY

3 sem. hrs.

Intensive examination of some major figure or movement in the history of philosophy such as Plato, Kant, or British Empiricism. Prerequisite: PHI 254 or 255. May be repeated if different content.

361 THEORY OF KNOWLEDGE**3 sem. hrs.**

Classic and contemporary theories of knowledge. Problems of meaning, truth, certainty, a prior knowledge, induction, perception belief and evidence. Prerequisite: Two PHI courses.

362 METAPHYSICS**3 sem. hrs.**

Classic and contemporary metaphysical theories. Problems of substance, change, universals, time, space, mechanism, teleology, and freedom. Prerequisite: Two PHI courses.

390 INDEPENDENT STUDY**1-3 sem. hrs.**

Prerequisites: One PHI course and consent of instructor and dept. chairperson.

PHYSICS (PHY)

Chairperson: George Skadron. Office: 311 Moulton Hall.
Graduate Faculty: J. Crew, K. Jesse, R. Koshel, M. Luther, J. Schroeder, G. Skadron, R. Young.

Note: Graduate degrees are not granted in the Department of Physics, but course work is available as supplemental study or as electives.

Courses**301 PROBLEMS IN THE TEACHING OF HIGH SCHOOL PHYSICS****3-4 sem. hrs.**

Modern methods and problems confronting teachers of high school physics. Includes observation and clinical experiences for 4 hrs. credit. Prerequisites: 16 hrs. in PHY, Admission to Teacher Education, C&I 200 (6 hrs.), or 200.03 (grade of C or better), or 215 (2 hrs.), or concurrent registration.

320 MECHANICS**3 sem. hrs.**

Transformations of coordinate systems; oscillations; calculus of variations; Lagrangian and Hamiltonian dynamics; rigid body dynamics. Prerequisites: PHY 220 and MAT 340.

340 ELECTRICITY AND MAGNETISM**2 sem. hrs.**

Boundary value problems in electro and magnetostatics; Maxwell's equations; electromagnetic waves and radiation. Prerequisites: PHY 240 and MAT 340.

355 MOLECULAR AND SOLID STATE PHYSICS**3 sem. hrs.**

Introduction to the spatial, dynamic, and electric properties of condensed matter. Prerequisites: PHY 252, 225.

360 NUCLEAR PHYSICS**3 sem. hrs.**

Basic nuclear properties; radioactivity; low energy nuclear reactions; interaction of particles and radiation with matter; nuclear models. Prerequisite: PHY 252.

375 ELECTRONICS FOR SCIENTISTS**3 sem. hrs.**

The operation and design of electronic circuits and electronic instruments. Prerequisite: PHY 109 or equivalent.

382 RELATIVITY**3 sem. hrs.**

Relativistic mechanics, optics, and electrodynamics. Tensors and introduction to general relativity including the Schwarzschild solution and gravitational waves. Prerequisites: PHY 252; earned grades of A or B in PHY 220 and 240.

384 QUANTUM MECHANICS**3 sem. hrs.**

Mathematical formulation of quantum theory and applications to simple systems. Prerequisites: PHY 240, 252 and MAT 340.

385 ATOMIC PHYSICS**3 sem. hrs.**

Application of quantum theory to atomic systems including angular momentum theory, atomic structure, and atomic transitions. Prerequisites: PHY 384 and consent of instructor.

387 METHODS OF MATHEMATICAL PHYSICS**3 sem. hrs.**

Vector calculus; partial differential equations of science and engineering; Fourier series and integrals; complex variables. Prerequisites: PHY 240 and MAT 340, or concurrent registration.

388 PHYSICS AND COMPUTERS**3 sem. hrs.**

Solution of physics problems by computer. Problems include electric circuits, classical and quantum waves, Monte Carlo techniques, data analysis. Prerequisites: MAT 146, 164 (FORTRAN); six hours of 200-level PHY theory courses.

POLITICAL SCIENCE (POS)

Chairperson: Hibbert R. Roberts. Office: Schroeder Hall 306.

Graduate Faculty: J. Brooks, T. Eimermann, A. Elder, G. Gordon, J. Gueguen, R. Hunt, G. Kiser, G. Klass, D. Lanoue, N. Lind, W. Mead, A. Monroe, J. Nassar, R. Payne, F. Roberts, H. Roberts, T. Wilson, H. Zeidenstein.

Master's Degree in Political Science

The department offers work leading to the following degrees: M.A., M.S.. Students may take either a comprehensive program, which requires courses in four sub-fields, or a thesis program which requires courses in at least three sub-fields, or a public service option which requires courses in at least two sub-fields and a thesis.

Courses**310 VOTING AND ELECTIONS****3 sem. hrs.**

Intensive investigation of U.S. voting behavior and electoral process; includes instruction in analysis techniques.

312 PUBLIC OPINION**3 sem. hrs.**

Includes attention to social and psychological bases of public opinion, current trends, methods of measurement, and opinion-policy linkages. Prerequisite: POS 105 or SAS 106.

313 COLLECTIVE DECISION-MAKING**3 sem. hrs.**

Game theory approach to decision-making in large groups, including legislatures, unions, oligopolies, bureaucratic organizations, and international negotiations.

316 ADVANCED LEGAL RESEARCH**3 sem. hrs.**

A comprehensive study of legal resource materials and research strategies with emphasis on developing legal writing skills. Prerequisite: POS 281.

318 ADMINISTRATIVE LAW**3 sem. hrs.**

An overview of administrative law topics such as legislative, executive, and judicial control of administrative actions, public and private access to information, the administrative hearing process, and other due process concerns.

323 STATE POLITICAL SYSTEMS**3 sem. hrs.**

Exploration of the nature of state politics through comparison, contrast and synthesis of micropolitical and macropolitical research in state politics.

325 CONSTITUTIONAL LAW: FUNCTIONS AND POWERS**3 sem. hrs.**

Major Supreme Court decisions on federalism, separation of powers, taxation, commerce, voting, and citizenship.

326 CONSTITUTIONAL LAW: DUE PROCESS RIGHTS**3 sem. hrs.**

An examination of major Supreme Court decisions involving both procedural and substantive due process rights.

327 CONSTITUTIONAL LAW: EQUALITY AND FREE EXPRESSION**3 sem. hrs.**

An examination of major Supreme Court decisions involving discrimination, and freedom of speech, press, assembly, and religion.

328 JUDICIAL BEHAVIOR**3 sem. hrs.**

Theoretic and analytic approaches to the study of judicial decision making at the federal, state and local levels.

329 INTERGOVERNMENTAL RELATIONS**3 sem. hrs.**

Federalism in theory and practice, focusing on U.S.; politics and policy in intergovernmental contexts; recent initiatives and current problems.

330 PROBLEMS OF PUBLIC ADMINISTRATION**3 sem. hrs.**

Varied approaches to problems relevant to public policy, organization development, management, staff, or personnel concerns, and applied behavioral techniques. May be repeated if content is different.

331 PUBLIC PERSONNEL ADMINISTRATION**3 sem. hrs.**

The personnel process in American bureaucracy: matching the individual and the job; employer-employee relations; employee motivation; problems and prospects.

332 PUBLIC POLICY ANALYSIS**3 sem. hrs.**

Comparative policy research; an assessment of factors affecting policy formation and approach to evaluation of consequences of specific domestic public programs. May be repeated if content different.

333 THE POLITICS OF GOVERNMENT BUDGETING**3 sem. hrs.**

Meaning, significance, content and historical evolution of government budgeting processes and reforms at all levels of government as well as the political implications of fiscal reforms.

344 GLOBAL STUDIES**3 sem. hrs.**

To provide an intensive review and analysis of critical global problems and strategies for dealing with them. May be repeated if content different.

345 ASIAN POLITICS**3 sem. hrs.**

Comparative studies in the government and politics of selected Asian nations. May be repeated if content different.

347 LATIN AMERICAN POLITICS**3 sem. hrs.**

Politics of development and regional integration in South and Central America, using selected countries as examples. May be repeated if content different.

348 EUROPEAN PUBLIC POLICY**3 sem. hrs.**

Analysis and evaluation of the policy-making process and public policies of the European Community and individual Western European nations.

351 INTERNATIONAL LAW**3 sem. hrs.**

Political nature, legal principles, and juridical procedures and cases of contemporary international law.

354 SOVIET FOREIGN POLICY**3 sem. hrs.**

A study of the strengths and weaknesses of Soviet foreign policy. Focuses on the foreign policy decision-making system, on intentions and capabilities.

356 AMERICAN FOREIGN POLICY**3 sem. hrs.**

An analysis of the formulation, implementation, and content of American foreign policy.

362 CLASSICAL POLITICAL PHILOSOPHY**3 sem. hrs.**

Introduction to the origin and development of inquiry about human life in political association with particular reference to ancient and medieval philosophers from Socrates through Dante. May be repeated if content different.

364 CONTEMPORARY POLITICAL THOUGHT**3 sem. hrs.**

Survey of the major political theories between the end of the 19th century (since Marx) and the present.

368 TECHNOLOGY AND SOCIETY**3 sem. hrs.**

Exploration of the implication of modern technology and technique for political science.

Seminars

The content of the following seminars will vary according to the interests of the particular instructor offering the course. Provided different material is covered, a seminar may be repeated.

411 SEMINAR IN AMERICAN POLITICS**3 sem. hrs.**

- 421 **SEMINAR IN STATE AND LOCAL POLITICS**
3 sem. hrs.
- 422 **SEMINAR IN URBAN POLITICS**
3 sem. hrs.
- 431 **SEMINAR IN PUBLIC ADMINISTRATION**
3 sem. hrs.
- 432 **SEMINAR IN JUDICIAL POLITICS**
3 sem. hrs.
- 441 **SEMINAR IN COMPARATIVE POLITICS**
3 sem. hrs.
- 451 **SEMINAR IN INTERNATIONAL RELATIONS**
3 sem. hrs.
- 461 **SEMINAR IN POLITICAL THOUGHT**
3 sem. hrs.
- 490 **READINGS IN POLITICAL SCIENCE**
1-3 sem. hrs.

For the student who would benefit from more specialized or independent study adapted to his/her background and needs. To be taken only with permission of the student's adviser.

- 491 **INTERNSHIP IN COLLEGE TEACHING IN POLITICAL SCIENCE**
3 sem. hrs.
- Credit for the course is given in C&I (see C&I 491).
- 497 **INTRODUCTION TO RESEARCH METHODOLOGY**
3 sem. hrs.

Selection of a research problem, collection of data, types of research, the research report, and use of the library in connection with the research problem. Emphasis on understanding and interpreting frequently used statistical concepts. Provides a background for the preparation of the thesis. Enables the student to become an intelligent consumer of the products of educational research.

- 498 **PROFESSIONAL PRACTICE**
1 - 6 sem. hrs.
- Public service or para-legal internship.
- 499 **MASTER'S THESIS**
1-6 sem. hrs.

PSYCHOLOGY (PSY)

Chairperson: Larry Alferink. Office: 435E DeGarmo Hall.
Graduate Faculty: L. Alferink, M. Baum, R. Bergner, L. Berk, J. Binning, V. Cashen, R. Crist, W. Friedhoff, N. Gamsky, W. Gnagey, B. Goebel, M. Goldstein, D. Graybill, D. Hardwick, E. Harris, R. Hogan, A. House, J. Johnson, D. Lamb, S. Landau, J. Latona, K. Leicht, E. Lemke, M. Lewis, B. Moore, B. Nastasi, K. Pfost, J. Pryor, G. Ramseyer, G. Redding, G. Reeder, R. Rumery, L. Schmaltz, M. Stevens, M. Swerdlik, W. Vernon, K. Williams, M. Williams.

The Department of Psychology offers the MA and MS in Psychology as well as the MA and MS in School Psychology. The department has also received approval to offer the Ph.D. in School Psychology and expects to implement this program in the fall of 1989. All graduate students are required to take PSY 418, 420, and 341 or 442. Although required courses may be waived, students must still earn a

minimum total of 32 hours. Students must complete either a thesis or a comprehensive examination requirement. The department operates a psychological clinic for the assessment and treatment of children and families. Some graduate students enrolled in the practica spend part of their time working in this center.

Psychology

It is possible for the student to select one of a number of sequences the department offers: Clinical, Counseling, Developmental, Educational, Experimental, Measurement-Statistics and Organizational-Industrial. Departmental requirements and descriptions are given below. For more specific information interested students are requested to send their inquiries to the chairperson of the department or the sequence coordinator.

Clinical

This sequence requires two years of study and is designed to prepare students to provide counseling and psychological assessment services in settings such as mental health centers, family service agencies, other mental health facilities, and community colleges. Students are trained in psychotherapy, family, marital, and group therapies, and psychological assessment. Students may elect to plan a program emphasizing child and family treatment.

The program includes two semesters of practica in campus and community settings which build on course work in basic psychology, psychological assessment, and theories and techniques of psychotherapy.

Counseling

This sequence requires two years of study and is designed to prepare students for counseling positions in settings such as community colleges, mental health centers, family service agencies, rehabilitation centers, etc.

Developmental

This sequence is designed for students who plan on pursuing doctoral work or for students who desire to pursue a career applying developmental psychology to problems of children or the elderly.

Educational

This sequence is designed for teachers who already possess reasonable knowledge of their major teaching field but who wish to know more about the teaching-learning process and human behavior.

Experimental

This sequence is designed primarily for students who wish to study psychology with the plan of applying for doctoral study.

Measurement-Statistics

Students selecting this sequence can gain knowledge which will facilitate careers in computer applications, educational evaluation, advanced graduate study, psychometrics, and teaching.

Organizational-Industrial

Students selecting this sequence can gain preparation for positions in personnel, training, management, labor relations, or to enhance their effectiveness in their present position. A thesis is required.

School Psychology

This program requires two years of study and is designed to prepare students to function as school psychologists in public schools. Successful completion of the program allows students to meet all but the internship requirement for certification as school psychologists by the State of Illinois.

The department operates a psychological clinic for the assessment and treatment of children and families. Some graduate students enrolled in the practica spend part of their time working in this center.

Courses

301 DEVELOPMENTAL PSYCHOLOGY OF CHILDHOOD

3 sem. hrs.

Motor, cognitive, and emotional development and personality growth of children, birth through pre-adolescence. Prerequisite: PSY 111.

302 DEVELOPMENTAL PSYCHOLOGY OF ADOLESCENCE

3 sem. hrs.

Motor, cognitive, and emotional development and personality growth of the adolescent. Prerequisite: PSY 111. May include clinical experiences.

303 ADULT DEVELOPMENT AND AGING

3 sem. hrs.

A study of physical, cognitive, and personality development during adulthood, with emphasis on theories, empirical data, research methods, and current issues. To receive graduate credit for the course, students will complete an independent project in addition to the regular course requirements. Prerequisite: PSY 111.

304 GERONTOLOGICAL PSYCHOLOGY

3 sem. hrs.

Psychological aspects of developmental transformations occurring during later adulthood. Applications of psychology to problems of aging. Prerequisite: PSY 111.

305 PSYCHOLOGY OF WOMEN

3 sem. hrs.

An examination of psychological research to place in scientific perspective the etiology and behavioral consequences of female- and male-oriented attitudes. Prerequisite: PSY 111.

320 HISTORY AND SYSTEMS OF PSYCHOLOGY

3 sem. hrs.

Historical antecedents of modern psychology, beginning with Aristotle. Examination of modern psychology from a systematic point of view. Prerequisite: PSY 111.

331 STUDIES IN EXPERIMENTAL PSYCHOLOGY

3 sem. hrs.

Individualized research course focusing on particular content areas. Sections concentrate on different areas. Repeatable but not in the same content area. Prerequisites: PSY 231, 240.

333 PRINCIPLES OF BEHAVIOR MODIFICATION

3 sem. hrs.

Principles of behavior modification with an emphasis upon their use in a variety of educational and clinical settings. Prerequisite: PSY 111.

334 PSYCHOLOGICAL MEASUREMENT

3 sem. hrs.

Selection, evaluation, and interpretation of psychological tests, with emphasis on basic theory. Tests are considered as indicators of constructs in specific decision situations. Prerequisite: PSY 111.

341 STATISTICS II

3 sem. hrs.

Logic of statistical inference: Interval estimation, complex hypothesis testing, and non-parametric techniques. Applications in behavioral sciences. Prerequisite: PSY 240.

345 COMPUTER APPLICATIONS IN PSYCHOLOGY

3 sem. hrs.

Application of computer technology to psychology. Special emphasis is placed on the use of computer statistical packages to analyze psychological data.

346 PSYCHOLOGY OF EXCEPTIONAL CHILDREN

3 sem. hrs.

A study of the socio-psychological factors influencing the exceptional child's cognitive and affective development with implications for those working with exceptional children. Prerequisite: PSY 112 or 301 or 302 or 232 or C&I 210 or consent of instructor. May include clinical experiences.

347 BEHAVIOR DISORDERS IN CHILDREN

3 sem. hrs.

Medical, psychological, sociological aspects of behavioral disorders of children. Prerequisite: PSY 111.

350 PSYCHOPATHOLOGY

3 sem. hrs.

Behavior disorders; neuroses, psychoses, character disorders, mental deficiencies, and other psychopathological conditions. Prerequisite: PSY 111.

352 HUMAN ABILITIES

3 sem. hrs.

Nature, assessment, and organization of human abilities. Empirical and theoretical analysis of genetic and environmental factors in development of abilities. Prerequisite: PSY 334.

360 LEARNING

3 sem. hrs.

Experimental data bearing on the problem of learning; learning theory; learning data and theory in relation to applied problems. Prerequisite: PSY 111.

361 PERCEPTION

3 sem. hrs.

Cognitive processes and their relationship to other processes. Relationship of sensation, attention, and memory to perception and factors influencing perception. Prerequisite: Nine semester hours of PSY, or consent of instructor.

363 PHYSIOLOGICAL PSYCHOLOGY**3 sem. hrs.**

Neurophysiological and biochemical substrates of behavioral processes including sensorimotor, perceptual, motivational, emotional, and intellectual behaviors. Prerequisites: Nine semester hours of PSY and BSC 100, or consent of instructor.

364 MOTIVATION**3 sem. hrs.**

Evolution of basic concepts leading to contemporary explanation of determiners of action with application to vocational, social, and educational areas. Prerequisite: Nine semester hours of PSY.

365 DYNAMICS OF SOCIAL BEHAVIOR**3 sem. hrs.**

An overview of the explanations for various aspects of social behavior, e.g., interaction, attitudes, person perception, etc. Prerequisite: PSY 131.

375 PERSONNEL PSYCHOLOGY**3 sem. hrs.**

Procedures and methods used to match individual skills and abilities to the requirements of specific jobs; emphasis is on personnel selection. Prerequisites: PSY 230 or 334.

376 ORGANIZATIONAL PSYCHOLOGY**3 sem. hrs.**

Research methods and results concerning social psychology of work organizations. Descriptions of practices of organizational psychology. Prerequisites: PSY 230. Not for credit if had MQM 221 or 421.

400 INDEPENDENT STUDY**1-4 sem. hrs.**

Refer to Index for General Courses.

418 THEORIES OF LEARNING**3 sem. hrs.**

A consideration of the major contemporary learning theories and their relationship to experimental data. Prerequisite: PSY 231 or 360.

420 THEORIES OF PERSONALITY**3 sem. hrs.**

Analysis of major theoretical formulations concerning personality with emphasis upon their current status and evidential bases.

421 ADVANCED BEHAVIOR MODIFICATION**3 sem. hrs.**

Techniques for changing behavior through manipulation of environment. General principles of conditioning plus their application to patterns of problem behavior. Prerequisite: PSY 331 (operant) or 333 or 360, or consent of instructor.

432 PSYCHODIAGNOSTICS I**3 sem. hrs.**

Theory of and training in individual mental testing with emphasis on the Binet and the Wechsler tests. Prerequisites: PSY 350 or concurrent registration and consent of instructor.

433 PSYCHODIAGNOSTICS II**3 sem. hrs.**

Theory of projective methods and development of competence in the use of selected procedures. Prerequisites: PSY 432 and consent of instructor.

435 DIAGNOSTIC PROCEDURES**3 sem. hrs.**

Emphasis is on the assessment, diagnosis, and remediation of learning disabilities with particular stress on a psycholinguistic approach. Prerequisites: Graduate standing in Psychology and consent of instructor.

436 PRACTICUM**1-12 sem. hrs.**

Clinical practice in university facilities and outside agencies. Provides training in diagnosis and treatment. Fifteen hours per week. Prerequisites: Clinical or Counseling, PSY 432 and 464 and consent of instructor; School, PSY 432, 433, and 435 and consent of instructor. May be repeated to a total of twelve semester hours.

437 GROUP PSYCHOTHERAPY AND COUNSELING**3 sem. hrs.**

Theory and research in group dynamics, techniques of group therapy and counseling. Methods of evaluating groups, direct experience as group member and group leader. Prerequisites: PSY 464 and consent of instructor.

438 TECHNIQUES OF OBJECTIVE PSYCHOLOGICAL ASSESSMENTS**3 sem. hrs.**

Clinical application of representative techniques of objective measurement. Selection, integration, and interpretation of tests will be included. Prerequisites: PSY 334 and consent of instructor.

439 INTRODUCTION TO NEUROPSYCHOLOGICAL ASSESSMENT**3 sem. hrs.**

Designed to prepare the student to make clinical judgments regarding cognitive and personality deficits related to brain function. Prerequisites: PSY 432; PSY 363 recommended.

441 EXPERIMENTAL DESIGN**3 sem. hrs.**

Statistical principles of experimental design; selection, analysis, and interpretation of Analysis of Variance and Covariance designs in the behavioral sciences. Prerequisite: PSY 341.

442 TEST THEORY**3 sem. hrs.**

Theory and principles of test reliability and validity, topics in test theory, statistical procedures applicable to psychometric methods. Prerequisites: PSY 240 and 334.

444 MULTIVARIATE ANALYSIS**3 sem. hrs.**

Topics covered include basic matrix algebra and linear transformations, analysis of covariance with multiple covariates, multivariate significance tests of group differences, discriminant analysis, multivariate analysis of variance. Prerequisite: PSY 441.

447 CHILDHOOD PSYCHOPATHOLOGY**3 sem. hrs.**

Characteristics, prevalence rates, and theories of the psychological disorders of childhood. Prerequisite: Graduate standing. PSY 301, 347, or 350 recommended.

464 THEORIES AND TECHNIQUES OF COUNSELING**3 sem. hrs.**

Goals, methods, and procedures of different theoretical positions. Emphasis is on interpersonal dimensions of the counseling interview. Crosslisted SED and CJS.

465 VOCATIONAL COUNSELING**3 sem. hrs.**

Acquiring and using occupational and educational information. Consideration of job requirements and training opportunities; developing occupational units; nature of vocational development.

470 CLINICAL PSYCHOLOGY**3 sem. hrs.**

Traces history and philosophy of profession from assessment, psychotherapeutic and research traditions. Prerequisite: Graduate standing in Clinical, Counseling, or School Psychology or consent of instructor.

472 THEORY AND PRACTICE OF SCHOOL PSYCHOLOGY**3 sem. hrs.**

The roles, functions and professional problems in School Psychology. Prerequisites: Open only to students in School Psychology Program, consent of instructor.

480 SEMINAR IN PSYCHOLOGY**1-3 sem. hrs.**

Intensive study of special topics in psychology. May be repeated for credit with different subject matter.

481 COMMUNITY MENTAL HEALTH**3 sem. hrs.**

Social systems as they affect individual mental health. Conceptual models, typical programs, methods of analyzing communities, and methods for designing community mental health programs. Prerequisite: PSY 350.

485 DEVELOPMENT OF THE GIFTED**3 sem. hrs.**

Physical, intellectual, and social-emotional development of the gifted from conception through adulthood. Classroom applications will also be stressed. Not for credit in a Psychology Department degree program. Prerequisites: Graduate standing and PSY 215, 301, 302, 345 or C&I 210.

486 IDENTIFICATION OF THE GIFTED**3 sem. hrs.**

The study of measurement concepts and human abilities as they relate to the identification of gifted students. Not for credit in a Psychology Department degree program.

491 INTERNSHIP IN COLLEGE TEACHING OF PSYCHOLOGY**3 sem. hrs.**

Credit for this course is given in C&I (see C&I 491). Open only to advanced psychology majors.

498 PROFESSIONAL PRACTICE**1-12 sem. hrs.**

Available in Developmental, Measurement and Statistics, Organizational/Industrial and School Psychology. Refer to Index for General Courses. Prerequisite: Consent of program coordinator.

499 MASTER'S THESIS**1-6 sem. hrs.**

SOCIOLOGY, ANTHROPOLOGY AND SOCIAL WORK (SASW)

Chairperson: Robert H. Walsh. Office: Schroeder Hall 338.

Graduate Faculty: W. Bainbridge, A. Cortese, M. Cunningham, R. Dirks, D. Eaton, D. Ervin, C. T. Griffin, B. Heyl, D. Lee, W. Leonard, K. McKinney, M. Nickels, O. Pocs, M. Pratt, W. Rau, R. Schmitt, S. Sprecher, R. Stivers, S. Thomas, W. Tolone, R. Treadway, R. Walsh.

Master's Degree in Sociology

The department offers work leading to the M.A. and M.S. degrees in Sociology. The 32 hour minimum of graduate work must include Sociology 466, Sociology 471, and at least nine additional hours of Sociology courses at the 400 level, **excluding** Independent Study, Readings, and Master's Thesis. The remaining 17 hours may be taken at the 300 or 400 level and may include up to six hours in related non-sociology courses and up to six hours of Independent Study with consent of adviser. Entering students should have a minimum of 12 semester hours in Sociology including Sociology 240, 270, and 271 or demonstrate equivalent competency. Enrollment for such undergraduate courses may be used to remove deficiencies but hours do not count toward the 32 hour minimum for the graduate degree.

Courses in Sociology

311 ISSUES IN GERONTOLOGY**3 sem. hrs.**

Advanced treatment of selected subjects in gerontology. Prerequisite: SAS 211, or consent of instructor.

317 SOCIOLOGY OF SPORT**3 sem. hrs.**

The social institution of sport is examined using such sociological concepts as social organization, culture, socialization, deviance, social stratification, minority groups, and collective behavior. Also offered as HPR 317. SAS 106 recommended.

332 SMALL GROUPS**3 sem. hrs.**

Conditions affecting interaction in small groups, the small group as an ongoing social system. Limited research project. SAS 106 or PSY 131 recommended.

333 SELF AND SOCIETY**3 sem. hrs.**

A social psychological approach. Childhood and adulthood socialization are examined from the perspectives of symbolic interactionism, role theory, reference group theory, and self theory. Pragmatic implications are considered. Prerequisite: SAS 106 or PSY 111.

341 SOCIOLOGY OF SEX ROLES**3 sem. hrs.**

Application of culture concepts, status, role and self concepts, and socialization concepts toward the explanation of sex differences in social behavior. Institutionalized and social change processes are examined. SAS 106, PSY 111 recommended.

342 ADVANCED HUMAN SEXUALITY**3 sem. hrs.**

Analysis of personal, interpersonal, and sociocultural aspects of sexual relationships. Prerequisite: SAS 123 or PSY 123.

343 SEXUALITY EDUCATION**3 sem. hrs.**

Perspectives, approaches, resources, and the development of basic skills in sexuality education. Prerequisite: SAS 123.

350 SOCIOLOGY OF EDUCATION**3 sem. hrs.**

Sociological perspective on educational systems. Relationship of the educational system to other institutions, organizational characteristics, and social factors influencing behavior of students.

365 JUVENILE DELINQUENCY**3 sem. hrs.**

Delinquency as a social and legal problem; theories of delinquency, the juvenile court; prevention and treatment. SAS 106 recommended.

366 CONTEMPORARY SOCIAL MOVEMENTS**3 sem. hrs.**

Patterns of collective behavior; structure and functions of social movements. Examination of several social movements, analysis of morale, leadership and control. SAS 106 recommended.

367 CRIMINOLOGY**3 sem. hrs.**

Criminological theory and practice. Crime as a social and legal problem. The administration of justice. SAS 106 recommended.

431 ADVANCED SOCIAL PSYCHOLOGY**3 sem. hrs.**

Intensive study of a major sub-area of social psychology. Socialization, social role theory, self theory, collective behavior, attitude formation and measurement.

461 READINGS IN SOCIOLOGY**1-3 sem. hrs.**

A course for the graduate student who would benefit from a specialized independent type of study adapted to the student's background and needs. To be taken by permission of the graduate adviser and the instructor involved.

465 SOCIOLOGY OF FORMAL ORGANIZATIONS**3 sem. hrs.**

Analysis of classical organizational models including: Weberian, Classical Management, Human Relations, Decision Making, and Political Process. Focus on environmental, contextual, structural, process, and performance dimensions of organizations. Crosslisted with CJS.

466 SOCIOLOGICAL THEORY**3 sem. hrs.**

An analysis of recent theoretical developments in sociology. Attention will focus on a variety of social theories found useful in explaining social phenomena.

467 SOCIOLOGY OF LAW**3 sem. hrs.**

Sociological theories of law, and research on law in society. Attention to judicial and jury decision-making, legal structures, legislation, power, beliefs, conflict, and social change. Public, civil, and criminal law included. Cross-listed with CJS.

469 SEMINAR IN SOCIOLOGY**3 sem. hrs.**

May be taken up to three times if topics differ. Advanced graduate study in sociological topics:

- Seminar in Deviance/Criminology
- Seminar in Family/Sex Roles
- Seminar in Minorities/Stratification
- Seminar in Social Institutions
- Seminar in Demography
- Seminar in Gerontology

471 SOCIOLOGICAL RESEARCH**3 sem. hrs.**

Design and execution of research involving theoretical and methodological aspects of sociological problems. Advanced methods of analysis and interpretation of data.

491 INTERNSHIP IN COLLEGE TEACHING**3 sem. hrs.**

Observation and teaching in the student's major area with other experiences appropriate to academic involvement at the college level. Offered in cooperation with the student's major department. Prerequisite: Graduate standing. Credit for the course is given in C&I (see C&I 491).

497 INTRODUCTION TO RESEARCH METHODOLOGY**3 sem. hrs.**

Selection of a research problem, collection of data, types of research, the research report, and use of the library in connection with the research problem. Provides a background for the preparation of the thesis.

Fall: Emphasis on statistical concepts and procedures.

Spring: Emphasis on qualitative research methodology. Enables the student to become an intelligent consumer of the products of sociological research.

499 MASTER'S THESIS**1-6 sem. hrs.**

See Index for General Courses.

Courses in Anthropology**306 REGIONAL AND AREA STUDIES****1-9 sem. hrs.**

Directed research in any of the sub-disciplines in anthropology.

380 KEY CONCEPTS IN ANTHROPOLOGY**3 sem. hrs.**

Anthropological thought from historical, systematic, and applied viewpoints; emphasis on changing content, concepts, methods of the discipline. Prerequisites: SAS 180, 181, 182, 274, 281, 285, 286 or consent of instructor.

381 ARCHAEOLOGICAL FIELD SCHOOL**1-9 sem. hrs.**

Field instruction in methods and techniques of archaeological survey, excavation, preparation and preservation of materials, and record keeping. Prerequisites: SAS 181 and SAS 274 recommended. Materials charge optional.

383 STUDIES IN SELECTED CULTURES**3 sem. hrs.**

Culture patterns of selected areas. Physical characteristics, history, social, political, intellectual life, cultural change of aboriginal people. Prerequisite: SAS 180. Material charge optional.

386 METHODS AND THEORY IN ARCHAEOLOGY**3 sem. hrs.**

Study of archaeological methods and theory from 1800 to the present, with an emphasis on American archaeology. Prerequisites: SAS 181 and 274, or consent of instructor.

388 HISTORICAL ARCHAEOLOGY**3 sem. hrs.**

Research methods of historical archaeology reviewed, and the principles that underlie the methods examined critically. A local historic site is thoroughly studied as a class project. Prerequisite: SAS 274.

Courses in Social Work**323 CHILD WELFARE SERVICES****3 sem. hrs.**

Recommended before SAS 368 if student wishes placement in a child-serving agency. Services for dependent,

neglected, and handicapped children. Prerequisite: SAS 221, 222, or Home Economics major or Special Education major.

325 SOCIAL WORK METHODS I

3 sem. hrs.

Basic theory, values, and beginning skills development generic to social work practice at individual, group, and community levels. Prerequisite: SAS 221, 223, and 264 or concurrent registration.

SPEECH PATHOLOGY AND AUDIOLOGY (PAS)

Chairperson: Martin A. Young. Office: Fairchild Hall 204.
Graduate Faculty: C. Bowman, M. Brunt, M. Howard, J. Hufnagle, L. Hulit, M. Koenig, P. Monoson, W. Smoski, J. Tannahill, M. Young.

The department offers work leading to the M.A. or M.S. degrees with emphasis in speech pathology or audiology. In addition to the requirements of the Graduate School, the candidates for the master's degree with emphasis in speech pathology must meet all the requirements for the Illinois Certificate in Speech and Language Impaired, and all the academic requirements for the Certificate of Clinical Competence of the American Speech-Language-Hearing Association. It is anticipated that Student Teaching in Speech Pathology, a requirement of the Illinois Certificate in Speech and Language Impaired, will be a graduate-level experience in 1991. The candidate for the master's degree, with emphasis in audiology, must meet all the academic requirements for the Certificate of Clinical Competence of the American Speech-Language-Hearing Association. Copies of requirements for both Illinois and national certification are available in the departmental office.

Admission to the program as a degree student requires an undergraduate grade point average of at least 3.0 computed on the last 60 semester hours of undergraduate work. Because of a limited number of spaces in the graduate program, admission to the program may be deferred or denied. A student whose undergraduate grade point average is between 2.60 and 2.99 may be admitted on a probationary basis. Retention in the program and reclassification as a degree student will depend upon achieving a grade point average of at least 3.00 after the semester in which the first 9 semester hours of approved graduate-level courses are completed.

Three program options are available in speech pathology and audiology.

The 32-hour comprehensive option requires 32 hours of approved graduate-level course work, to include PAS 401, and a passing performance on an eight-hour written comprehensive examination at the end of graduate study.

The 32-hour thesis option requires 32 hours of approved graduate-level course work, to include PAS 401 and four to six hours of credit in Master's Thesis 499.

The 39-hour option in speech pathology requires 39 hours of approved graduate-level course work, at least 28 of which are 400-level department courses, including practicums, and to include the following courses: PAS 401, 412, 413, 415, a 400-level course in audiology, and at least two hours of credit in PAS 400 to serve as a culminating experience.

The 39-hour option, with emphasis in audiology, also requires 39 hours of approved graduate-level course work, at least 28 hours of which are 400-level department courses,

including practicums, and to include the following courses: PAS 401, 450, 452, 455, one 400-level course in speech pathology, and at least two hours of credit in PAS 400 to serve as a culminating experience. For students in both speech pathology and audiology 39-hour options, the terminal experience (PAS 400) is to be taken during the last semester of course work.

Students in all three options must maintain a cumulative grade point average of 3.00 in both major courses and overall to retain their degree candidate status and to be eligible for department practicums.

Enrollment by graduate students in the department's practicums requires the completion of at least six hours of 400-level department courses and degree candidate status. Speech pathology practicum enrollment requires PAS 412, 413 and 415 in the following sequence: at least one of these courses completed prior to the first practicum enrollment; a second course concurrent with the first practicum enrollment; and the third course concurrent with the second practicum enrollment. Audiology practicum enrollment requires a similar sequence for PAS 450, 452 and 455. In all instances, permission of the Clinic Director is needed for practicum enrollments, and enrollments may be restricted. Graduate practicums may require a student to provide transportation to settings arranged by the department.

A candidate for the master's degree must spend at least one full term in residence in order to qualify for the degree. A full term is interpreted as one semester with a class load of eight or more hours, or a summer session with a class load of six or more hours.

Courses

301 SPEECH SCIENCE

3 sem. hrs.

Elementary acoustical theory with application to the study of speech production and reception. Speech spectrography. Prerequisite: PAS 272.

316 INTRODUCTION TO ORGANIC DISORDERS OF SPEECH

3 sem. hrs.

Speech disorders related to structural, neurological, and endocrine pathologies. Diagnostic and remedial procedures. Includes clinical experiences. Prerequisite: PAS 272.

318 ORGANIZATION OF SPEECH, HEARING, AND LANGUAGE PROGRAMS

3 sem. hrs.

Professional attitudes, ethics, and organizations. Responsibilities in various professional settings. Program development and maintenance.

319 STUTTERING I

3 sem. hrs.

Nature and history of the problem. Current models of onset, development, and management. Includes clinical experiences.

320 SPEECH AND LANGUAGE DEVELOPMENT

3 sem. hrs.

Comprehensive study of acquisition of speech and language by children. Emphasis on first six years. Includes clinical experiences.

321 LANGUAGE PATHOLOGY

3 sem. hrs.

Introduction to the identification and remediation of language disorders in children and adolescents.

337 PRACTICUM IN SPEECH PATHOLOGY**1/2-1 sem. hr.**

Approximately 45 hours of supervised clinical practice for each semester hour. Prerequisites: PAS 330. Includes clinical experiences. May be repeated for maximum of 2 hours. Materials charge optional.

349 HEARING SCIENCE**3 sem. hrs.**

Introduction to the concepts, theories and terminology required to form an understanding of auditory processing in the normal-hearing individual.

350 AUDIOLOGY I**3 sem. hrs.**

Principles of hearing measurement: sound, human ear, test methods, hearing losses, screening methods, test interpretation. Includes clinical experiences.

351 SPEECH READING AND AUDITORY TRAINING**3 sem. hrs.**

Principle of habilitation/rehabilitation of communication disorders related to hearing impairment. Visual/auditory speech signals. Amplification: function/use. Includes clinical experiences.

358 PRACTICUM IN BASIC AUDIOLOGY**1/2-1 sem. hr.**

Approximately 45 hours of supervised clinical practice for each semester hour. May be repeated for maximum of 2 hours. Includes clinical experiences. Materials charge optional. Prerequisite: PAS 350.

359 PRACTICUM IN SPEECH READING AND AUDITORY TRAINING**1/2-1 sem. hr.**

Approximately 45 hours of supervised clinical practice for each semester hour. Prerequisites: PAS 351 and 358. May be repeated for maximum of 2 hours. Includes clinical experiences. Materials charge optional.

360 AUGMENTATIVE COMMUNICATION FOR NON-SPEAKING PERSONS**3 sem. hrs.**

Description of assessment, intervention strategies and equipment, and research questions.

401 METHODS OF RESEARCH IN SPEECH PATHOLOGY AND AUDIOLOGY**3 sem. hrs.**

Introductory review of research strategy and philosophy in speech pathology and audiology for professionals who will be consumers of research literature.

412 PHONOLOGICAL DISORDERS**3 sem. hrs.**

Review and synthesis of literature on articulatory phonetics, the acquisition and disruption of phonological processes, and the assessment and remediation of phonological disorders.

413 VOICE AND VOICE DISORDERS**3 sem. hrs.**

Review of the physiology of normal voice production and the study of the literature relating to etiologies, diagnosis, and management of voice disorders. Prerequisites: PAS 316, 301 and 272 or equivalent, or consent of instructor.

415 LANGUAGE DISORDERS**3 sem. hrs.**

Synthesis of the research literature on language disorders relating to their description, assessment and remediation. Prerequisite: PAS 315 or 320.

417 CLINICAL PRACTICE IN SPEECH PATHOLOGY**1/2-1 sem. hr.**

Approximately 45-60 hours of supervised clinical practice (4-7 clients) for each semester hour. May be repeated for a maximum of 4 semester hours. Prerequisite: Consent of instructor. Materials charge optional.

418 STUTTERING II**3 sem. hrs.**

Study of the recent research relating to stuttering and of methods of examination, diagnosis, and remedial procedures. Prerequisite: PAS 319.

419 APHASIA**3 sem. hrs.**

This course is designed to provide the student with a knowledge of past and current research and theory on the etiologies, diagnosis of, and therapies for aphasia in children and adults. Prerequisite: PAS 316.

444 NEUROPATHOLOGIES OF SPEECH**3 sem. hrs.**

The nature and types of neuropathologies that have an effect on speech production, with particular emphasis given to cerebral palsy. Prerequisite: PAS 316 or equivalent.

445 OROFACIAL ANOMALIES AND ASSOCIATED SPEECH DISORDERS**3 sem. hrs.**

Embryological growth and development and the etiologies, diagnostic, and rehabilitative procedures for orofacial anomalies with emphasis on cleft lip and palate. Prerequisites: PAS 316 and 272 or equivalent.

446 DIAGNOSTIC PROCEDURES IN SPEECH PATHOLOGY**3 sem. hrs.**

Test materials and procedures for differential diagnoses of speech and language problems.

447 COMMUNICATIVE DISORDERS ASSOCIATED WITH HEAD AND NECK CANCER**3 sem. hrs.**

The course is designed to give the student insight into the area of cancer of the head and neck and communication difficulties associated with management of the disease. Prerequisite: PAS 272, or consent of instructor.

450 ADVANCED AUDITORY TESTS**3 sem. hrs.**

The rationale, application, and interpretation of advanced testing procedures; evaluation of research in special tests. Prerequisite: PAS 350 or equivalent.

452 AMPLIFICATION FOR THE HEARING IMPAIRED**3 sem. hrs.**

Hearing Aids: acoustical analysis methods, clinical evaluation procedures, and applications among hearing impaired children and adults. Prerequisite: PAS 350 or equivalent.

453 AUDITORY FUNCTIONS AND DISORDERS**3 sem. hrs.**

Function of the auditory mechanism with reference to theories of hearing; examination of the etiology, loci, and effects of hearing pathology as it affects auditory function in adults. Prerequisite: PAS 350 or equivalent.

455 HEARING DISORDERS IN CHILDREN**3 sem. hrs.**

A review and study of the literature in audiology and otology of the etiology, loci, and effects of pathology in the auditory system of children. Prerequisite: Consent of instructor.

456 SEMINAR IN AUDIOLOGY**2-6 sem. hrs.**

Specific topics selected by the student with approval of the instructor, or assigned topics will be explored. In general, library sources will be employed; however, some experimental procedures may be approved. The student may repeat the seminar for credit provided that the subject matter is not duplicated and the total credit earned does not exceed six semester hours. Prerequisite: Consent of instructor.

457 AUDIOLOGIC HABILITATION AND REHABILITATION**3 sem. hrs.**

Study of the clinical management of communication disorders arising from hearing impairment with emphasis on research literature and recent trends. Prerequisite: PAS 351.

458 PRACTICUM IN AUDIOLOGY**1/2-1 sem. hr.**

Approximately 45-60 hours of supervised clinical practice in various aspects of audiology. May be repeated for a maximum of 4 semester hours. Emphasis in one or more aspects will be permitted to suit the objectives of the student. Prerequisite: PAS 350 and consent of instructor. Materials charge optional.

471 SPEECH PRODUCTION AND PERCEPTION**3 sem. hrs.**

A study of the literature and instrumentation related to speech production, the speech signal, speech and auditory perception. Prerequisite: PAS 301 and 272 or equivalent.

499 MASTER'S THESIS**1-6 sem. hrs.**

Students who register for one or more hours of PAS 499 are required to attend thesis seminar.

ZOOLOGY (See Biological Sciences)

Photo by Pattaraboon Pichayapaiboon

COLLEGE OF BUSINESS

Dean: Andrew Nappi, Office 316 Williams Hall.

The College of Business contains the departments of Accounting, Business Education and Administrative Services, Finance and Law, Management and Quantitative Methods, and Marketing. The primary objective of the College of Business is to prepare undergraduate and graduate students for professional or managerial careers in business, education, government, industry, or nonprofit organizations. The College supports the principle that education for these careers requires the assimilation of a basic common body of knowledge as well as opportunities for acquiring depth in appropriate fields. The College offers graduate programs leading to the Master of Science in Accounting, Master of Business Administration, and the Master of Science or Master of Arts in Business Education. The College of Business also is involved in research, public service, and faculty professional development and maintains relationships with business, industrial and service organizations in the area.

Master of Business Administration

Director of Graduate Programs: G. J. Brabb, Office: 322 Williams Hall.

The Master of Business Administration (MBA) degree is a collegiate degree with courses offered in all departments of the college and the Department of Economics in the College of Arts and Sciences. The program is designed to prepare the student for a managerial, professional, or administrative career not only in business, but also in governmental, educational, and social and other not-for-profit institutions. The MBA student is given a broad understanding of business and its environments. Students develop interpersonal effectiveness and the ability to analyze data and use management science models and the computer. Elective credits allow students to individualize their program and to obtain additional knowledge in diverse areas: accounting, marketing, management, personnel management, management for non-profit organizations, finance, decision systems, and information systems analysis.

MBA Program Requirements for Admission

All University and Graduate School requirements for admission to a degree program in the Graduate School of the University apply with the substitution of the Graduate Management Admissions Test (GMAT) for the GRE. However, the collegiate requirements for admission to the Master of Business Administration degree program are higher than those for the Graduate School.

The GMAT must be taken for admission. An official score report on the GMAT is an **absolute prerequisite** for consideration for admission to the MBA program. International students are required to submit TOEFL scores with their admission applications.

Students-at-large must apply for permission from the College of Business to register for business courses. Such students may be required to furnish official transcripts which show the degree earned and the prerequisites for the courses in which the student is asking for permission to enroll. Some courses in the College have restricted and/or limited enrollments and thus may not be open to students-at-large.

Students may be admitted to the MBA program at any time during the academic year, but preference is given to student applications received by July 1 for August admission, by November 15 for January admission, and by May 1 for summer admission.

Academic Adviser

Students seeking the MBA should meet with the Director of Graduate Programs in the College of Business and develop a Plan of Study. The MBA degree assumes an undergraduate knowledge base in business, economics, and accounting which students with undergraduate degrees in business will normally have completed. Students with non-business undergraduate degrees will have to complete courses in one or more knowledge areas before enrolling in the core graduate courses. With careful planning, and coordination between colleges and departments, qualified students may complete an undergraduate non-business major and a Master of Business Administration degree in five years.

Specific requirements will be determined in consultation with the Director of Graduate Programs, but students with a non-business undergraduate degree should expect to complete some or all of the following **foundation courses**:

- ECO 401 Survey of Economic Principles.
- ACC 401 Survey of Accounting Principles.
- ACC 405 Survey of Business Data Processing.
- MQM 402 Management Fundamentals.
- MKT 403 Marketing Concepts.
- MQM 406 Quantitative Methods (prerequisite: MAT 107 or equivalent).
- MQM 407 Production and Operations Management (prerequisite: MQM 406 or equivalent).
- FAL 404 Theory of Managerial Finance (prerequisite: ACC 401 or equivalent).

The Office of the Director of Graduate Programs reserves the right to deny credit for both graduate and undergraduate course work completed at other institutions. The burden of proof to demonstrate course comparability rests with the student.

As general guidelines: (1) Lower-division course credit will not substitute for upper-division course work requirements (e.g., a 200-level ISU course requirement cannot be satisfied by either junior college or community college credits); and (2) without documentation, credits earned at non-AACSB accredited institutions will not substitute for upper-division course work requirements at ISU (e.g., no 200-level credit will be automatically granted to international students based upon course titles alone).

Curriculum Requirements

All MBA candidates must complete 36 semester hours including the following courses:

ACC 450 Management Accounting (Prerequisite: ACC 401 or 6 hours of accounting),
 ECO 404 Economic Analysis for Business Decisions (Prerequisites: ECO 100, 101, 131 or equivalent),
 FAL 410 Legal Aspects of Business Decisions,
 FAL 440 Financial Management (Prerequisites: MQM 406, FAL 404 or equivalent),
 MKT 430 Advanced Marketing Management (Prerequisites: MKT 403 and MQM 406 or equivalent),
 MQM 415 Advanced Quantitative Methods (Prerequisite: MQM 407 or equivalent),
 MQM 420 Organization Theory (Prerequisite: MQM 402 or equivalent),
 MQM 485 Business Problems and Policy (Prerequisites: MQM 415, 420, MKT 430, FAL 440),
 MQM 497 Research Methodology (Prerequisite: MQM 406 or equivalent).

Beyond the above mentioned nine courses (27 semester hours) each candidate must complete nine (9) semester hours of 400-level graduate electives selected with the approval of the graduate adviser.

Elective courses for meeting the requirement of the MBA degree must be at the 400-level or above. Electives taken from outside the College of Business must have the prior approval of the MBA adviser.

A thesis may be substituted for up to six hours of elective course work. Please refer to Index for Graduate School policy on thesis.

Course Limitations

Master of Business Administration candidates will not be permitted to include any of: ECO 401, MKT 403; MQM 402, 406, and 407; FAL 404, ACC 401 and 405 no more than three (3) credits earned in any 498 course(s) in their Plan of Study for graduate credit.

Courses

Description of courses leading to the MBA degree will be found under the Departments of Finance and Law, Management and Quantitative Methods, Marketing, and Accounting.

Repetition of Courses in the MBA Program

A student can register officially for any MBA course, foundation, core or elective, only twice. That is, if a student completes a course, or drops a course after the tenth day enrollment report, he or she may officially enroll in the same course only one additional time.

ACCOUNTING (ACC)

Chairperson: James A. Hallam. Office: Stevenson Hall 435A.

Graduate Faculty: T. Duffy, G. Fish, J. Hallam, L. Lamers, M. McCiure, M. Rexroad, E. Rozanski, G. Sanderson.

Academic Adviser: M. Orendorff.

Master of Science in Accounting

The Master of Science in Accounting degree is designed for the student who is interested in professional accounting. It is anticipated that upon completion of a degree the student will be employed in a public accounting firm or an accounting area of business or government. In addition, many graduates have gone on to successfully complete Ph.D.'s in Accounting. The Master of Science in Accounting degree is based upon the recommendations of the American Institute of Certified Public Accountants. The AICPA has recommended a fifth year of academic preparation prior to entering public accounting. This degree is designed to meet that fifth year need.

Admission Requirements

All University and Graduate School requirements for admission to a degree program of the Graduate School at Illinois State University will apply. Graduate students who have been admitted to the University will be admitted to the Master of Science in Accounting degree program only after successfully completing the Graduate Management Admission Test (GMAT). A minimum GMAT of 475 is required. A minimum grade point average (GPA) of at least 2.75 on a 4.00 scale for the last 60 undergraduate hours is also required.

Before entering the program students will normally have had a Bachelor of Science in Accounting degree based upon the Financial Accounting Standards Board's pronouncements, the AICPA Statement on Auditing Standards and the Internal Revenue Code. Otherwise, there may be deficiencies as determined by the MSA adviser. International students are required to submit a TOEFL score of 600 or more with their application for admission. A student-at-large will not be permitted to register for any courses in the MSA program.

Curriculum Requirements

All MSA candidates must complete 32 semester hours and a comprehensive examination administered near the end of the final semester of course study.

Required Courses

430 Advanced Accounting Theory4 sem. hrs.
468 Computer-Based Management Information Systems4 sem. hrs.
497 Introduction to Research Methodology in Accounting4 sem. hrs.
400-Level Accounting Elective chosen from ACC 431, 435 and 4394 sem. hrs.
Total	16 sem. hrs.

Elective Courses

Accounting: 300 or 400 level courses.6-12 sem. hrs.
BEA, FAL, MKT or MQM: 300 level3-6 sem. hrs.
BEA, FAL, MKT or MQM: 400 level3-6 sem. hrs.
Behavioral Science: 300-400 level.3-6 sem. hrs.
Total	16 sem. hrs.

Repetition of Courses in the MSA Program

A student can register officially for any MSA course, undergraduate deficiency or graduate level, only twice. That is, if a student completes a course, or drops a course after the tenth-day enrollment report, he or she may officially enroll in the same course only one additional time.

Academic Adviser

It is recommended that undergraduate students who are considering a Master of Science in Accounting degree make arrangements with the academic adviser to determine deficiencies and to develop a plan of study for the complete program. Thus, the student should see the adviser to discuss the entire program including the required comprehensive examination.

Courses

Normally, the following courses will not count toward an M.S. in Accounting: ACC 401, 405, and 450.

330 FUND ACCOUNTING

3 sem. hrs.

Accounting applications to financial planning and control for non-profit institutions. Prerequisites: ACC 231. Overall GPA of 2.5 or an A or B in ACC 231. ACC majors only.

332 ADVANCED MANAGERIAL ACCOUNTING

3 sem. hrs.

Recent conceptual and analytical developments in the area of management accounting. Prerequisites: ACC 166, 230, MQM 100, and MAT 145 or 121 and an overall GPA of 2.5 or an A or B in ACC 230.

334 ADVANCED TAX PROBLEMS

3 sem. hrs.

Intensive examination of corporation, partnership, estate, trusts, and gift tax problems. Prerequisites: ACC 233 or consent of department chairperson, and an overall GPA of 2.5 or an A or B in ACC 233.

336 AUDITING PROBLEMS

3 sem. hrs.

In-depth analysis of statistical samples, accountants' legal exposure, EDP in auditing, analysis of practical problems encountered by the public accountant in a variety of auditing situations. Prerequisite: ACC 235. Overall GPA of 2.5 or an A or B in ACC 235. ACC majors only.

337 ADVANCED ACCOUNTING PROBLEMS

3 sem. hrs.

A study of advanced accounting topics with specific emphasis on business combinations and consolidated financial statements. Other topics include partnership accounting, international operations, branch accounting, segment reporting and interim statements. Prerequisite: ACC 232 and an overall GPA of 2.5 or an A or B in ACC 231 and 232. ACC majors only.

340 INTERNATIONAL ACCOUNTING

3 sem. hrs.

Examination of financial management of multi-national enterprises and of diverse accounting practices in international business. Prerequisite: ACC 132.

362 ADVANCED BUSINESS SYSTEMS ANALYSIS

3 sem. hrs.

Involves the development of a data processing system, including the development of input files, updating and file maintenance, and design and preparation of reports, and complete documentation of the data processing system. Prerequisites: ACC 261 and 366 and an overall GPA of 2.5 or an A or B in ACC 261 and 366. Materials charge optional.

366 ADVANCED BUSINESS DATA PROCESSING

3 sem. hrs.

Advanced applications using disk systems, tape systems, and operating systems as applied to business problems

using COBOL. Prerequisites: ACC 266 or ACS 272, and an overall GPA of 2.5 or an A or B in ACC 266 or ACS 272. Materials charge optional.

369 DATA PROCESSING CENTER OPERATIONS

3 sem. hrs.

A study of managerial data processing responsibilities, problems and issues encountered by a data processing manager. Prerequisite: 9 hrs. in BIS courses or consent of department chairperson.

375 PROFESSIONAL PROBLEMS

3 sem. hrs.

An intensive study of contemporary accounting problems with a strong orientation toward the preparation for the CPA and CMA examinations. Prerequisites: 24 hours of ACC. ACC 330, 334, 336, 337 or consent of instructor. Concurrent enrollment allowed for only two of: ACC 330, 334, or 336. Overall GPA of 2.8 required. Concurrent enrollment in FAL 375 recommended.

401 SURVEY OF ACCOUNTING PRINCIPLES

3 sem. hrs.

This course compresses into a single semester material ordinarily covered in the first two semesters of elementary accounting. Enrollment is limited to graduate students who have had no more than one semester of previous study in accounting. The course cannot be presented for graduate credit by a degree candidate in the ACC or MBA graduate programs.

405 SURVEY OF BUSINESS DATA PROCESSING

3 sem. hrs.

This course compresses into a single semester material ordinarily covered in a beginning business data processing class and a business systems analysis class. Prerequisites: Admission to a graduate business program. Cannot be taken for credit in ACC or MBA graduate programs. Typing skills recommended. Also offered as ACS 405.

430 ADVANCED ACCOUNTING THEORY

4 sem. hrs.

Fundamental concepts of accounting theory: their nature, structure, history, and development. Relationship and application to current accounting problems. Prerequisite: 18 semester hours of accounting including ACC 232.

431 CURRENT ISSUES IN ACCOUNTING

4 sem. hrs.

Consideration of current issues and controversies in theory and practice; special attention given to authoritative pronouncements and professional literature. Prerequisite: 18 semester hours of accounting including ACC 232.

435 ADVANCED AUDITING

4 sem. hrs.

A critical analysis of auditing standards and procedures, the relationship of trends and developments of the accounting profession to the practice of auditing, including the examination of current professional literature. Prerequisite: ACC 235, or consent of department chairperson.

439 ADMINISTRATIVE ACCOUNTING

4 sem. hrs.

Accounting as a tool for management planning and control and decision making. Organization of the accounting department; financial and management audits and performance evaluation; cost determination and analysis for administrative purposes. Prerequisite: 18 semester hours of accounting including ACC 230, or consent of department chairperson.

450 MANAGEMENT ACCOUNTING**3 sem. hrs.**

Designed for non-accounting majors. Emphasis on the interpretation and use of accounting data. Prerequisite: ACC 401 or 6 hours of accounting or consent of department chairperson.

468 COMPUTER-BASED MANAGEMENT INFORMATION SYSTEMS**4 sem. hrs.**

Designing of management information systems modules and their integration into an overall computer-based management information system for business. Prerequisite: ACC 261, or ACC 263, or ACC 405 or consent of department chairperson.

497 INTRODUCTION TO RESEARCH METHODOLOGY IN ACCOUNTING**4 sem. hrs.**

Instruction in research and reporting methods, practices, and techniques together with individual practice in conducting and reporting on specific research projects in accounting. Prerequisites: 18 sem. hrs. of ACC including ACC 232 and BEA 240 or its equivalent, or consent of department chairperson.

498 PROFESSIONAL PRACTICE: INTERNSHIP IN ACCOUNTING**1-3 sem. hrs.**

Practical experience by employment in public, industrial, governmental, tax accounting or business data processing. Prerequisite: ACC maj. only; 21 hours ACC overall GPA of 3.0.

BUSINESS EDUCATION AND ADMINISTRATIVE SERVICES (BEA)

Chairperson: Wilma Jean Alexander. Office: Williams Hall 327.

Graduate Faculty: W. Alexander, J. Grever, J. Hall, A. Kaisershot, P. Marcum, T. Palmer, J. Rich, I. Varner, R. Wentling, M. Winchell, R. Wray.

Master's Degree Programs in Business Education

The Master's Degree Program in Business Education can lead to the Master of Arts or the Master of Science degree. A minimum of 32 semester hours and a comprehensive examination are required or the student may elect to take 28 semester hours and complete a thesis for four semester hours of credit in Master's Thesis 499.

Both degree programs require 17 semester hours in business education and up to 15 semester hours in business, education, or cognate courses with the approval of the student's adviser. Each student must complete a minimum of 16 semester hours at the 400-level or above.

Students may also elect a thirty-nine semester hour option. Of the 39 semester hours required, a minimum of 21 semester hours must be taken from the Department of Business Education and Administrative Services. A total of no less than 18 semester hours must be at the 400-level or above. Neither a thesis nor a comprehensive examination is required. However, the student must maintain a 3.2 grade point average for graduation. In addition, a graduate student selecting the 39-semester hour option must write a

major research paper for which one semester credit hour will be allowed.

The Master of Arts degree requires foreign language reading competency in addition to the required number of semester hours.

32 Hour Option

Required courses BEA 401, 410, 420 and 497. Select one or more from the following: BEA 360.01, 360.02, 360.03, 360.04, 360.05, 360.06, 360.07, 360.08, 360.09, 360.10, or 360.11. Select one or more from the following: BEA 330, 335, 341, 345, 351, 353, 371, 372, 380, 381, 382, 402, 406, 408, 416, 454, 491, or 499.

39 Hour Option in Business Education

1. Completion of the requirements listed under the 32-hour option. Note that the 39-hour option does not require the comprehensive examination or master's thesis.
2. Completion of a minimum of 21-hours within the Department of Business Education and Administrative Services.
3. Completion of a major paper (BEA 400-Independent Study).
4. Completion of 18-hours at the 400 level.

General Administrative Endorsement With Emphasis in Vocational Education

A career option leading to general administrative endorsement with emphasis in vocational education is offered in cooperation with the Department of Educational Administration and Foundations through the Departments of Agriculture, Business Education and Administrative Services, Home Economics, and Industrial Technology. Students interested in the vocational emphasis should (a) see department chairperson or appropriate adviser and (b) file an Intent to File for Certification form in the Office of Clinical Experiences and Certification Processes. All students who plan to receive certification for the State of Illinois via an approved ISU program must file official forms and follow specific procedures. Certification is not given automatically at the completion of specific course work or a degree program.

39 Hour Option in Vocational Administration

Required courses: BEA 420, 485, 486, 497, C&I 476, EAF 478, 479, 481, and MQM 420. Select one or more from the following: BEA 360.01, 360.02, 360.03, 360.04, 360.05, 360.06, 360.07, 360.08, 360.09, 360.10, or 360.11. Select one or more from the following: BEA 330, 335, 341, 345, 351, 353, 371, 372, 380, 381, 382, 402, 406, 408, 410, 416, 454, or 491. A minimum of 18 hours at the 400 level.

Admission Requirements

All University and Graduate School requirements for admission to a degree program of the Graduate School at Illinois State University will apply. Graduate students who have been admitted to the University will be admitted to the Master of Science or Master of Arts degree program in Business Education only after successfully completing the Graduate Management Admission Test (GMAT). A minimum score of 400 is required, but may be higher dependent on the GPA. A minimum GPA of 2.6 is required, but may be higher dependent on the GMAT score.

Before entering the program, students will normally have earned a Bachelor's degree in Business Education from an AACSB accredited institution; otherwise, there may be deficiencies. Deficiencies will be determined by the chairperson of the department.

Academic Adviser

The departmental graduate student adviser in consultation with the chairperson of the Department of Business Education and Administrative Services serves as the academic adviser for the Master's degree in Business Education. Students seeking a Master's degree in Business Education should meet with the departmental graduate student adviser prior to enrollment in graduate courses. Individual conferences with the students are continued throughout the graduate program. A Plan of Study required by the Graduate School is prepared jointly with the student and graduate adviser. When necessary, assistance is also provided for those degree candidates preparing for the comprehensive examination.

Courses

330 DECISION-MAKING FOR CONSUMERS

3 sem. hrs.

Survey of consumer problems, trends, and information. Topics include: insurance, housing, credit, life-styles, consumer protection, leisure, and achieving financial security. Also offered as HEC 330.

335 SOCIETAL CONTEXT OF CONSUMER EDUCATION

3 sem. hrs.

An analysis of the position of consumer education within the social system. The course will examine the institutional framework within which consumers function. Prerequisite: BEA 330, or HEC 330, or HEC 117 or concurrent registration.

341 PRACTICUM IN BUSINESS COMMUNICATIONS

2-3 sem. hrs.

Analysis of communications unique to professional employment. Emphasis on research and writing skills for effective communication. Prerequisite: BEA 240 or consent of instructor.

345 BUSINESS IN A MULTI-CULTURAL ENVIRONMENT

3 sem. hrs.

Business operations in a multi-cultural environment. Relationship between the business process and social attitudes, values, ideologies, and customs with special emphasis on Asia, Latin America, and the Middle East.

351 CONCEPTS IN OFFICE INFORMATION PROCESSING

3 sem. hrs.

Fundamental knowledge of office information processing systems: organization, implementation, management, work flow, word processing and word processing equipment, computer word processing, and the role of the secretary.

353 BUSINESS FORMS CREATION AND MANAGEMENT

3 sem. hrs.

Procedures for implementing a forms control program. Emphasis on analyzing and designing business forms. Prerequisite: BEA 250.

360 TOPICS IN STRATEGIES OF TEACHING BUSINESS EDUCATION SUBJECTS

2 sem. hrs.

Methods of teaching business education subjects including typewriting/keyboarding, shorthand, basic business, consumer economics, accounting, marketing education, word

processing and current topics. May be repeated if content different. Selected topics include clinical experience.

371 TEACHING BUSINESS TOPICS TO ADULT LEARNERS

3 sem. hrs.

Learning theory applied to development of education and training programs for adults in and for business.

372 EDUCATIONAL MATERIALS FOR ADULT LEARNERS IN BUSINESS

3 sem. hrs.

Identification, development, evaluation and selection of training materials for teaching business topics to adults.

380 ORGANIZATION AND ADMINISTRATION OF COOPERATIVE VOCATIONAL EDUCATION PROGRAMS

3 sem. hrs.

Planning and organizing a cooperative program; emphasis on recruitment, selection of training stations, student placement, and implementation of cooperative plan. Includes clinical experiences. Also offered as AGR 380, HEC 380 and IT 305.

381 DIRECTED OCCUPATIONAL EXPERIENCE FOR VOCATIONAL BUSINESS AND OFFICE, AND MARKETING EDUCATION

3 sem. hrs.

Designed to provide approved on-the-job experience for credit toward the occupational experience required of vocational business and office, and marketing education teachers.

382 COORDINATION TECHNIQUES OF COOPERATIVE VOCATIONAL EDUCATION PROGRAMS

3 sem. hrs.

Coordination techniques needed for high school and post-secondary teacher coordinators in integrating classroom activities with daily employment. Includes clinical experiences. Also offered as AGR 382, HEC 382 and IT 306.

401 ISSUES AND TRENDS IN BUSINESS EDUCATION

3 sem. hrs.

An investigative study of the historical development, current status, and philosophy of secondary, post-secondary, and adult business education programs.

406 MEASUREMENT AND EVALUATION IN BUSINESS EDUCATION

3 sem. hrs.

Principles underlying measurement and evaluation in business subjects; development and administration of testing programs for business departments.

408 PROBLEMS OF OFFICE MANAGEMENT

3 sem. hrs.

Problems, practices, and policies in office administration. Methods of establishing, analyzing, standardizing, and controlling administrative systems and procedures in the office.

410 CURRICULUM DEVELOPMENT IN BUSINESS EDUCATION

3 sem. hrs.

Principles and practices in curriculum development and revision as they apply to vocational and non-vocational business education programs.

416 ADVANCED MANAGERIAL BUSINESS COMMUNICATION**3 sem. hrs.**

Written communications to business organizations, the impact of political climates, ethical considerations on effective external and internal reports, study of critical thinking and logic in writing business reports.

420 SEMINAR IN BUSINESS EDUCATION**2-3 sem. hrs.**

Consideration of business education problems of greatest concern to the group and to the individual students by means of class discussions, presentation of position papers and research findings, group discussions, and individual conferences. May be repeated once for credit with consent of department chairperson.

454 PROBLEMS IN MARKETING EDUCATION**3 sem. hrs.**

Current problems and research involved in teaching marketing education in programs at the secondary and post-secondary levels.

485 VOCATIONAL DIRECTORSHIP I**3 sem. hrs.**

Development of knowledge and competencies in planning and organizing vocational education programs. Prerequisite: Consent of department chairperson or graduate adviser. Also offered as AGR 485, HEC 485, and IT 485.

486 VOCATIONAL DIRECTORSHIP II**3 sem. hrs.**

Second course in directorship sequence. Leadership strategies for implementing, operating, and evaluating vocational programs in the public sector. Prerequisites: AGR, BEA, HEC, or IT 485 and consent of department chairperson or graduate adviser. Also offered as AGR 486, HEC 486, and IT 486.

491 INTERNSHIP IN COLLEGE TEACHING IN BUSINESS EDUCATION**3 sem. hrs.**

(See C & I 491).

497 INTRODUCTION TO RESEARCH METHODOLOGY IN BUSINESS EDUCATION**3 sem. hrs.**

Tools and types of research applicable to business education. Critical evaluation of current research emphasizing application in the improvement of instruction.

499 MASTER'S THESIS**1-4 sem. hrs.****FINANCE AND LAW (FAL)**

Chairperson: William L. Scott. Office: Williams Hall 328.
Graduate Faculty: E. Byler, K. Crepas, E. Ficek, M. Gardner, D. Loy, C. McGuire, D. Mills, G. Naidu, R. Potter, A. Reichert, C. Varner.

Description and requirements for the Master of Business Administration degree are listed under the College of Business.

Courses**311 GOVERNMENT REGULATION OF BUSINESS****3 sem. hrs.**

Rules and regulations of mergers, monopolies, pricing, advertising, securities, food and drugs, unfair trade practices, utilities, and transportation. Prerequisites: ECO 101 and FAL 208.

312 INTERNATIONAL BUSINESS LAW**3 sem. hrs.**

Case study in international business law. Problems of jurisdiction, contract enforcement, government regulations, and tax. Comparative law with emphasis on Europe, Islam, Soviet Union, and the United States. Prerequisite: FAL 208.

340 SHORT-TERM FINANCIAL MANAGEMENT**3 sem. hrs.**

Analysis of working capital management; cash budgeting; financial analysis and planning; short-term financing decisions. Prerequisite: FAL 240 or equivalent.

341 CAPITAL INVESTMENT DECISION MAKING**3 sem. hrs.**

Theory of capital management, evaluation of risks, determination of capital structures, measure of costs and return, and allocation of capital. Prerequisite: FAL 240 or equivalent.

343 SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT**3 sem. hrs.**

Characteristics of financial assets and markets; evaluation of securities; selecting and combining securities into portfolios; portfolio models and measurement of portfolio performance. Prerequisite: FAL 240 or equivalent, 242. BUS majors only.

344 INTERNATIONAL FINANCIAL MANAGEMENT**3 sem. hrs.**

Financial management of multinational corporations, including balance of payments, foreign exchange markets and international money and capital markets. Prerequisite: FAL 240 or equivalent. BUS majors only.

349 ADVANCED FINANCIAL THEORY AND PROBLEMS**3 sem. hrs.**

An advanced coverage of financial theory and its applications to cases and problems. Specific area of emphasis varies according to the interests of students and faculty involved. Prerequisites: FAL 240, 340 or 341, and additional 6 hrs in finance. Not for graduate credit for MBA students.

351 LIFE AND HEALTH INSURANCE**3 sem. hrs.**

Personal and business risks. Principles of life and health insurance and their applications. Prerequisite: FAL 252.

354 RISK MANAGEMENT**3 sem. hrs.**

Management's role in treating nonspeculative risks to which business is exposed. Emphasis on recognition, evaluation, and treatment of risks. Prerequisite: FAL 351. BUS majors only.

360 REAL ESTATE INVESTMENT AND FINANCE
3 sem. hrs.

Decision-making analysis in real estate investment and financing. Emphasis on financial leverage, cash flow analysis, taxation, risk and mortgages. Prerequisite: FAL 240 and 260 or consent of instructor.

380 TOPICS IN THE LEGAL ENVIRONMENT OF BUSINESS
3 sem. hrs.

Selected topics in law and its relationship to business. Topics may include new developments in public and private law as it relates to business. May be repeated for credit with consent of instructor. Consent of department chair required.

404 THEORY OF MANAGERIAL FINANCE
3 sem. hrs.

This course compresses into a single semester materials that ordinarily would require two semesters of undergraduate course work in business finance and financial markets. It includes financial theory of the firm including the economic and institutional environment, working capital management, sources and uses of funds, capital structure, and budgeting. Prerequisites: ACC 401 or equivalent; admission to a graduate business program. The course cannot be taken for credit in the ACC or MBA graduate programs.

410 LEGAL ASPECTS OF BUSINESS DECISIONS
3 sem. hrs.

An overview of the legal environment affecting business decisions as well as an analysis of the social, ethical and political influences impacting business organizations.

440 FINANCIAL MANAGEMENT
3 sem. hrs.

Analysis of financial problems of business enterprises and the formulation of financial policies. Financing of current operations and long-term capital needs, income management and expansion policies. Includes case studies. Prerequisites: MQM 406, FAL 404 or equivalents.

441 ADVANCED FINANCIAL INSTITUTIONS AND MARKETS
3 sem. hrs.

A critical study of sources of funds and investment management of these funds; scope and changes in financial markets; recent policy changes and problems in financial management of financial institutions; changes being proposed in regulations affecting structure and functions of the intermediaries and the nature of financial markets. Prerequisite: FAL 440.

442 INVESTMENT MANAGEMENT
3 sem. hrs.

A strategic and operational study of investments from an analytical perspective including the planning, direction, and evaluation of investment programs. Prerequisite: FAL 440.

449 SEMINAR IN FINANCE
1-4 sem. hrs.

Topics will vary with needs and interests of students and faculty. May be taken more than once if different material is covered. Offered once per year. Prerequisite: FAL 440.

498 PROFESSIONAL PRACTICE: INTERNSHIP/COOPERATIVE EDUCATION IN FINANCE
1-6 sem. hrs.

Practical experience by employment in a position involved with financial analysis or the management of financial resources. Prerequisite: MBA majors with 12 or more credits of core courses; FAL 404 and 440; cumulative graduate GPA of 3.2 or higher.

499 MASTER'S THESIS
1-6 sem. hrs.

MANAGEMENT AND QUANTITATIVE METHODS (MQM)

Chairperson: V. Jean Ramsey. **Office:** 329 Williams Hall.
Graduate Faculty: A. Abdel-Halim, G. Brabb, S. Chitgopekar, P. Couch, M. Dumler, F. Fazel-Sarjui, R. Franklin, C. Graeff, L. Graf, M. Hemmasi, R. Kerber, M. Lewis, C. Mohr, K. Newgren, P. Park, R. Radhakrishnan, J. Ramsey, D. Robinson, V. K. Unni.

Description and requirements for the Master of Business Administration degree are listed under the College of Business.

Courses

300 INTERMEDIATE BUSINESS STATISTICS
3 sem. hrs.

Techniques used in modern business analysis. Topics include multiple regression and analysis of variance for applications in management, marketing, finance and accounting. Prerequisite: MQM 100, MAT 121 or equivalent.

301 DECISION THEORY
3 sem. hrs.

Behavioral and quantitative factors in business decision-making. Emphasis on quantitative methods of making decisions under conditions of uncertainty. Prerequisite: MQM 100.

319 SEMINAR IN QUANTITATIVE METHODS
3 sem. hrs.

Specialized study of a selected topic in the field of quantitative methods for advanced students. May be repeated once if different topic. Prerequisites: MQM 215, 227 and senior standing.

323 HUMAN RESOURCES MANAGEMENT
3 sem. hrs.

Principles and procedures relating to human resource management, including staffing, appraisal, training, compensation, and other programs for business and other organizations. Prerequisite: MQM 220.

324 INDUSTRIAL RELATIONS MANAGEMENT
3 sem. hrs.

Managing employment relations and work conditions. Emphasis on negotiating, administering labor agreements, and impact of collective bargaining on managerial practice. Prerequisites: MQM 220. ECO 100.

325 MANAGERIAL PLANNING AND DECISION MAKING**3 sem. hrs.**

A consideration of managerial decision making in organizations. Specific emphasis on strategic, program, and operational level planning decisions, techniques, and systems. Prerequisites: MQM 220 plus three (3) additional hours of management. BUS majors only.

326 SMALL BUSINESS MANAGEMENT**3 sem. hrs.**

Field program designed to familiarize the student with the problems of small business owners and/or operators. The student acquires first-hand knowledge and experience by dealing with on-going businesses. Prerequisite: Senior or graduate standing in Business.

327 OPERATIONS MANAGEMENT**3 sem. hrs.**

Advanced consideration of decision-making tools applied to manufacturing and other operational areas. Case analyses place emphasis on production management problems. Prerequisites: MAT 121, MQM 227.

344 DISCRETE SYSTEM SIMULATION**3 sem. hrs.**

Problem-solving using discrete simulation languages and techniques. Applies queuing theory, pseudo-random numbers, model verification and validation, experimental design. Prerequisites: ACS 169 or 273 or 274; MAT 121 or 146; a one semester course in prob./stat. Also offered as ACS 344.

353 HUMAN RESOURCE PLANNING AND DEVELOPMENT**3 sem. hrs.**

Human resource planning as the base for organizational human resource programs, and management of personnel development in organizations. Prerequisite: MQM 323.

354 COMPENSATION MANAGEMENT**3 sem. hrs.**

Compensation subsystem as a vital component in establishing a workplace system that stimulates employee performance. Prerequisite: MQM 323.

370 MANAGEMENT INFORMATION SYSTEMS**3 sem. hrs.**

Management information systems with emphasis on the responsibilities of management in the creation, control, and utilization of the information systems which support managerial decision-making. Prerequisites: MQM 220, ACC 131, 166 or equivalent; MKT 230, FAL 240 recommended.

402 MANAGEMENT FUNDAMENTALS**3 sem. hrs.**

This course compresses into a single semester materials that would ordinarily require two semesters of undergraduate course work in management and organizational behavior. Principles of management and organization theories with emphasis on organization structures, management functions, behavior, and interpersonal communications. Prerequisite: Admission to a graduate business program. Cannot be presented for credit in the ACC or MBA graduate programs.

406 QUANTITATIVE METHODS**3 sem. hrs.**

This course compresses into a single semester materials that ordinarily would require two semesters of undergraduate course work in business statistics and management science areas. It includes concepts and techniques of

quantitative (particularly statistical) methods useful for guiding business decisions and evaluating sample data. Prerequisites: MAT 107 or equivalent; admission to a graduate business program. Cannot be presented for credit in the ACC or MBA graduate programs.

407 PRODUCTION AND OPERATIONS MANAGEMENT**3 sem. hrs.**

This course compresses into a single semester materials that ordinarily would require two semesters of undergraduate course work in the production and operations management areas. It includes concepts, tools, and techniques involved in the planning and control of production processes. Prerequisites: MQM 406 or equivalent; admission to a graduate business program. Cannot be presented for credit in the ACC or MBA graduate programs.

415 ADVANCED QUANTITATIVE METHODS**3 sem. hrs.**

A study of the quantitative model building approach to managerial decisions. Topics include mathematical programming, network analysis, decision making under uncertainty, and waiting line analysis. Emphasis is placed on problem recognition and interpretation of solutions. Prerequisite: MQM 407 or equivalent.

417 PROBLEMS IN OPERATIONS MANAGEMENT**3 sem. hrs.**

Applications of operations management and quantitative decision tools to production and operations management problems. Case studies place emphasis on formulation, analysis, and interpretation of results. Prerequisite: MQM 415.

419 SEMINAR IN QUANTITATIVE METHODS FOR BUSINESS**1-4 sem. hrs.**

Topics will vary with needs and interests of students and faculty. May be taken more than once if different material is covered. Offered irregularly. Prerequisite: MQM 415.

420 ORGANIZATION THEORY**3 sem. hrs.**

Organization theory and design with emphasis on environmental, technological, power, contextual, and internal variables affecting organizational design and performance. Prerequisite: MQM 402 or equivalent.

421 ANALYSIS OF ORGANIZATIONAL BEHAVIOR**3 sem. hrs.**

A study of how people in organizations respond to managerial and organizational practices, using a systems orientation to analyze how environmental factors influence organizational practices and climate. Topics include reactions of people to structure and control, problems of motivation and performance, resolution of inter-departmental conflicts, adaptation to change. Prerequisite: MQM 420.

423 ADVANCED HUMAN RESOURCES MANAGEMENT**3 sem. hrs.**

Advanced study of selected contemporary issues in human resources management. Emphasis on critical investigation of current personnel research and practices. Prerequisite: MQM 420.

426 SEMINAR IN MANAGEMENT**3 sem. hrs.**

Significant issues related to the management of people as well as management functions or processes. Topics include: behavioral science and management, employee motivation, leadership, organizational communication, inter-organizational conflict, organization development, change, planning, objectives, control, values, ethics, social responsibility, and manpower management. May be taken more than once if different material is covered. Offered irregularly. Prerequisite: MQM 420.

485 BUSINESS PROBLEMS AND POLICY**3 sem. hrs.**

An integrating course analyzing the firm in its environment with emphasis on formulation of policies and strategies and application of concepts through case studies and/or simulation exercises integrating all functional areas. Prerequisites: MQM 415 and 420; MKT 430, and FAL 440.

497 RESEARCH METHODOLOGY**3 sem. hrs.**

The procedure, techniques, and application of research methods in business. Problem analysis, measurement techniques, experimental design considerations, and report presentation. Analytical methods, including classical hypothesis testing, nonparametric tests, analysis of variance, linear and multiple regression, and multivariate statistics. Prerequisites: MQM 406 with a grade of B or better within one year or proficiency examination in statistics.

**498 PROFESSIONAL PRACTICE:
INTERNSHIP/COOPERATIVE EDUCATION
IN MANAGEMENT OF QUANTITATIVE
METHODS**

1-3 sem. hrs.

Practical experience by employment in a position involved with the management of business activities, including the analysis of business decision situations. Prerequisite: MBA majors with 12 credits or more of core courses; cumulative graduate GPA of 3.2 or higher; consent of department chairperson.

499 MASTERS THESIS**1-6 sem. hrs.****MARKETING (MKT)**

Chairperson: Stephen Goodwin. Office: 325 Williams Hall.

Graduate Faculty: J. Cox, Jr., G. Glisan, S. Goodwin, J. Grimm, J. Hazeltine, W. Lesch

Description and requirements for the Master of Business Administration degree are listed under the College of Business.

Courses**329 PURCHASING POLICIES AND PROCEDURES****3 sem. hrs.**

Purchase of materials, supplies, and equipment for industry, government, and other institutions. Organization for purchasing, internal requisitioning, and stock control. Prerequisites: ECO 100, ACC 131.

333 ADVERTISING MANAGEMENT**3 sem. hrs.**

Rigorous evaluation of elements for the effective development, implementation, and management of advertising campaigns. Experience will be gained via cases, campaign development exercises, and/or computer simulation, in making decisions. Prerequisites: MKT 231, 232, 233, or equivalent.

334 SALES MANAGEMENT**3 sem. hrs.**

Theory, principles, and practices of sales force administration for manufacturing, wholesaling, and service enterprises. Topics include recruiting, training, compensation, and performance appraisal. Prerequisites: MKT 232, 234.

335 RETAILING MANAGEMENT AND PROMOTION**3 sem. hrs.**

Management and operation of retail firms. Emphasis is placed on location analysis, pricing, inventory control, and promotion. Prerequisites: MKT 231.

337 INDUSTRIAL MARKETING**3 sem. hrs.**

Focuses upon the scope and nature of marketing in an industrial or business-to-business context. A managerial decision making framework is utilized. Prerequisites: MKT 231, 232.

338 STRATEGIC MARKETING MANAGEMENT**3 sem. hrs.**

Development, implementation, evaluation, and control of the marketing plan. Includes analysis of actual and hypothetical cases. A term project is typical. Prerequisites: MKT 231, 232.

339 SEMINAR IN MARKETING**3 sem. hrs.**

A specialized study of important narrow topics in the field of marketing for advanced students. Prerequisites: MKT 231, 232. May be repeated once if a different topic and different instructor.

403 MARKETING CONCEPTS**3 sem. hrs.**

This course compresses into a single semester materials that ordinarily would require two semesters of undergraduate course work in principles of marketing and marketing management. The marketing function from the points of view of the consumer, business, and society (for students without previous marketing course work). Prerequisite: Admission to a graduate business program. Cannot be presented for credit in the ACC or MBA graduate programs.

430 ADVANCED MARKETING MANAGEMENT**3 sem. hrs.**

Marketing principles, behavioral concepts, and quantitative techniques utilized in analyzing marketing problems and decisions. Emphasis on the quantitative aspects of decision-making processes in marketing. Prerequisites: MKT 403 and MQM 406 or equivalents.

431 ADVANCED CONSUMER BEHAVIOR**3 sem. hrs.**

An analysis of psychological, sociological, social psychological, and cultural forces that influence household and industrial buying behavior. Emphasis placed on examination of research related to these influencing forces, practical applications of research findings, and on the analysis of comprehensive models of consumer behavior. Prerequisite: MKT 430.

439 SEMINAR IN MARKETING**1-4 sem. hrs.**

Topics will vary with needs and interests of students and faculty. May be taken more than once if different material is covered. International marketing, services marketing, advertising management, and marketing research continue to be popular topics. Prerequisite: MKT 430 or equivalent.

**498 PROFESSIONAL PRACTICE:
INTERNSHIP/COOPERATIVE EDUCATION
IN MARKETING****1-6 sem. hrs.**

Practical experience by employment in a position involving management of significant marketing activities in a firm.

Prerequisites: MBA major with 12 credits of core courses completed; MKT 403 and 430; cumulative graduate GPA of 3.2 or higher; consent of department chairperson.

499 MASTERS THESIS**1-6 sem. hrs.**

Photo by Thomas Fitch



COLLEGE OF EDUCATION

Interim Dean: C. Edward Streeter. Office: 533 DeGarmo Hall

The College of Education includes the Departments of Curriculum and Instruction, Specialized Educational Development, Educational Administration and Foundations, the Office of Clinical Experiences and Certification Processes, and the University Laboratory Schools. Two research and service units, the Center for the Study of Educational Finance and the Center for Higher Education, are also included in the College of Education. The College of Education has three broad missions: (1) rigorous preparation of quality instructional, supervisory, and administrative personnel to serve in all sectors of the economy in various capacities and at all levels of teaching and learning; (2) systematic study, research, and evaluation of education concerns within diverse cultural contexts plus the concomitant utilization of that research, for society's benefit; and (3) active involvement in service activities designed to improve the quality of life through education and to identify new directions for the College. The College administers clinical experiences in education and an admission-retention program in undergraduate teacher education in addition to offering a wide range of graduate programs, including doctoral programs in Educational Administration, Curriculum and Instruction, and Special Education.

Clinical Experiences and Certification Processes

Director: Robert L. Fisher, 310 DeGarmo Hall.

Student Teaching

399 STUDENT TEACHING
(or C&I 253 for elementary education majors
or C&I 263 for early childhood education
majors)
1-16 sem. hrs.

Graduate students who wish to do their student teaching must meet all of the relevant requirements as outlined in the University Wide Teacher Education Requirements section of the Undergraduate Catalog. Contact the CECIP office for further explanation of these requirements and procedures to apply for student teaching.

Students who are working toward a master's or doctoral degree or taking course work leading to entitlement or endorsement from a graduate level program should file an Intent to File for Certification form in the Office of Clinical Experiences and Certification Processes, 310 DeGarmo Hall. Certification is not given automatically at the completion of specified course work or degree work.

Refer all questions concerning certification to the Office of Clinical Experiences and Certification Processes.

CURRICULUM AND INSTRUCTION (C&I)

Chairperson: Dan Baxley Office: DeGarmo Hall 232.

Graduate Faculty: G. Baer, D. Bagley, D. Baxley, N. Bettis, D. Brodeur, L. Brown, J. Crotts, R. Fisher, T. Fitch, W. Galler, J. Godbold, J. Goeldi, R. Goodall, E. Irving, K. Jerich, D. Kachur, L. Kennedy, B. Lazerson, F. Lewis, M. Lorber, N. Madore, J. Morris, S. Mungo, W. Pierce, D. Rhodes, M. Shaw-Baker, F. Taylor, W. Venerable, M. Waimon, R. Youngs.

Doctor of Education in Curriculum and Instruction

The Department of Curriculum and Instruction offers work leading to the Ed.D. in Curriculum and Instruction. This multidisciplinary program is designed to prepare practitioners for educational leadership roles in both the public and private sector. Candidates may pursue courses of study related to service in positions such as instructional specialists in community and four-year colleges, curriculum coordinators at the pre-school, secondary, elementary level, community college teachers in selected applied areas, staff development or program assessment directors, or educational specialists in government, professional organizations, business and industry. Students may elect to develop areas of concentration from within the College which may include curriculum, instruction, supervision, post-secondary education, counselor education, reading, educational administration, educational policies and/or research and foundations. Other areas of concentration may be available to students upon approval of the major adviser. Course requirements for the degree include a minimum of 9 sem. hrs. in Educational Foundations including statistics; a minimum of 21 sem. hrs. in Curriculum and Instruction; a minimum of 9 sem. hrs. in Cognate Studies offered outside the College of Education; a minimum of 15 sem. hrs. in a complementary field; 6 sem. hrs. internship; and a minimum of 15 sem. hrs. dissertation. University requirements for the doctoral program are listed elsewhere in this catalog.

Master's Degree Program in Curriculum and Instruction

A master's program with advisement in the Department of Curriculum and Instruction is offered in Curriculum and Instruction. University requirements for master's degrees are given elsewhere in this catalog. A student may elect one of three alternate plans for the degree program. One may elect to do 32 hours of course work including a thesis for which the student may receive from four to six hours of credit in 499, or elect to do 32 hours of course work and

take a comprehensive examination, or elect to do 39 hours of course work. Specific course requirements are listed under the programs.

Students enrolled in approved graduate programs leading to certification via the entitlement process or endorsement need to file appropriate forms in the Office of Clinical Experiences and Certification Processes, as soon as they are admitted into the specific graduate program. Certification is not an automatic procedure.

The Master's degree in Curriculum and Instruction includes sequences in Early Childhood Education, Elementary Education, Junior High/Middle School Education, and Secondary Education. Four components of this degree program within which course requirements are to be fulfilled are: Area I, Basic Studies; Area II, Special Techniques; Area III, Directed Electives; and Area IV, Issues and/or Culminating Field Experiences. Specific course requirements and recommendations are listed under each sequence. Special program alternatives are available for those students who wish to declare special career interests in multicultural education and/or specific teaching fields.

The primary purpose of the Master's degree in Curriculum and Instruction is to provide each student enrolled with a broader knowledge base, to increase individual competency, and to develop analytical thought through advanced study of educational concepts, theories, and issues and their applications.

Sequences

Early Childhood Education: Students seeking advanced study in Early Childhood Education may elect to complete the sequence in early childhood education and requirements for state certification at the same time. Those not seeking certification may develop specializations in specific aspects of the field.

Basic Studies-12 hours: C&I 403, 439, 476, EAF 410. Special Techniques-12 hours: Courses selected from C&I 300, 301, 405, 487, 488, and/or other courses by advisement. Directed Electives-9 hours: Courses selected through faculty advisement. Issues and/or Culminating Field Experience-6 hours: C&I 479 and 496.

Elementary Education: The sequence in Elementary Education provides students with a comprehensive view of elementary education, including insights into local, state, and national trends in education and theoretical, empirical, and practical support for various aspects of the instructional process.

Basic Studies-12 hours: C&I 403, 439, 476, EAF 410. Special Techniques-12 hours: Courses selected from C&I 404, 405, 450, 452, 453, 437, 455, 477, and/or other courses by advisement. Directed Electives-9 hours: Courses selected through faculty advisement. Issues and/or Culminating Field Experience-6 hours: C&I 479 and 496.

Junior High/Middle School Education: A comprehensive sequence of courses focusing on instructional strategies, methodologies, patterns, and issues for those preparing for careers with early adolescents.

Basic Studies-12 hours: C&I 403, 439, 476, EAF 410. Special Techniques-12 hours: Courses selected from C&I 421, 422, 423, SED 407, and/or other courses by advisement. Directed Electives-12 hours: Courses in teaching field(s) selected through advisement. Issues and/or Culminating Field Experience-3 hours: C&I 431.

Secondary Education: The secondary education sequence is designed for practicing secondary education teachers.

The focus of the sequence is the improvement of instructional and curricular capabilities through systematic study.

Basic Studies-12 hours: C&I 403, 439, 476, EAF 410. Special Techniques-12 hours: Courses selected from C&I 433, 437, 455, 457, 477, EAF 411, 422, PSY 418, and/or other courses by advisement. Directed Electives-Courses in teaching field(s) selected through faculty advisement. Issues and/or Culminating Field Experience- 3 hours: C&I 431.

Program Alternatives

Alternative I is a 39-semester hour program in which twelve semester hours are required in Area I, Basic Studies (C&I 403, 439, 476, and EAF 410). C&I 487 may be substituted for C&I 439 in the Early Childhood Education sequence. Twelve semester hours are required under Area II, Special Techniques. In Area III, students in the Early Childhood Education and Elementary Education sequences must complete nine hours; those in Junior High/Middle School Education and Secondary Education are required to complete twelve hours of Directed Electives. For Area IV, Issues and/or Culminating Field Experiences, students in the Early Childhood and Elementary Education sequences are required to complete six hours, C&I 479 and 496. C&I 496 should be taken after the completion of 27-30 hours, the filing of a formal plan of study and acceptance as a candidate for a Master's degree in Curriculum and Instruction. Students in Junior High/Middle School Education and Secondary Education are required to complete C&I 431.

Alternative II is a 32 semester hour program with a comprehensive examination. Course requirements for Areas I, II and III are the same as in Alternative I.

Alternative III is a 32-semester hour program requiring 26-28 hours of course work plus four to six hours of thesis credit. Students are required to complete the course work listed in Area I, Basic Studies (C&I 403, 439, 476 and EAF 410). C&I 487 may be substituted for C&I 439 in the Early Childhood Education sequence; a minimum of twelve hours in Area II, Special Techniques, and the remaining hours in Area III, Directed Electives.

Advisement

Students are assigned departmental advisers as soon as they are admitted to the master's degree program in Curriculum and Instruction. In consultation with an adviser, each student plans his/her program and subsequently submits a Plan of Study to the Graduate School according to the requirements of the chosen sequence.

Supervision Endorsement

Requirements for the supervision endorsement may be met through the degree program in Curriculum and Instruction. Approved courses taken under advisement and clinical experiences make up the requirements for the endorsement to a valid certificate. Application for the supervision endorsement must be made with the Director of Clinical Experiences and Certification Processes upon admission to the appropriate degree program.

Courses

300 EDUCATIONAL ROLE OF PLAY IN EARLY CHILDHOOD

3 sem. hrs.

Emphasizes the process of play and its relationship to personal and cognitive development during the first eight years of life. Historical and current theories of play. Clinical experiences required. Materials charge optional.

301 PRE-KINDERGARTEN EDUCATION PRINCIPLES AND PRACTICES

3 sem. hrs.

Principles and practices of planning, teaching, and evaluating pre-kindergarten programs. Emphasizes living-learning experiences, activities, materials, and equipment appropriate for children in pre-kindergarten environments. Clinical experience required. Materials charge optional.

312 URBAN FIELD EXPERIENCE

3 or 6 sem. hrs.

An off-campus, community-based experience in urban schools, local community agencies, and state and private institutions serving youth.

318 SCHOOL/COMMUNITY INVOLVEMENT

2-6 sem. hrs.

Direct involvement with community programs and agencies. Student assumes the role of a volunteer participant under the guidance and supervision of a professor and a designated agency representative. Prerequisites: Concurrent registration, C&I 253 and consent of center director. Includes clinical experiences.

332 EDUCATION IN THE INNER CITY

3 sem. hrs.

Problems of educating students living in inner city: student characteristics, needed teacher skills and attitudes, instructional materials, techniques, school and community programs. Field trips. Includes clinical experiences.

333 JUNIOR HIGH/MIDDLE SCHOOL

3 sem. hrs.

Philosophy, functions, curricula of early adolescent education as implemented in junior high/middle schools. Relationships between pupils' developmental characteristics, needs, and behaviors and development of school programs. Problems, issues, evaluation, and accreditation of junior high/middle schools. Prerequisites: Consent of instructor and program adviser.

354 DEMONSTRATION TECHNIQUES IN ELEMENTARY SCHOOL SCIENCE

2 sem. hrs.

Basic theory, rationale, and principles of effective demonstration science teaching in elementary school science. Includes analysis, synthesis, and utilization of both commercial and individually constructed demonstration apparatus and materials. Students will develop and use demonstration materials. Prerequisite: C&I 252 or consent of instructor and program adviser.

390 JUNIOR HIGH/MIDDLE SCHOOL CURRICULUM

3 sem. hrs.

Methods and materials for teaching/learning experiences at this school level; instructional strategies; classroom management; guidance techniques; and pupil evaluation. Prerequisites: SED 306 and C&I 333 or concurrent registration. Includes clinical experiences.

395 CURRICULAR DESIGNS, EVALUATION, AND PROBLEMS IN EARLY ADOLESCENT EDUCATION

3 sem. hrs.

Study of problems encountered by practitioners; curriculum designs, and principles underlying curricular development in early adolescent education.

403 ORGANIZATION AND MANAGEMENT OF CLASSROOM LEARNING

3 sem. hrs.

The role of the classroom teacher in effective learning practices in the changing school setting. Organizing the school for effective living and learning; effective approaches to learning in the various curriculum areas in order to care for individual differences among students in the classroom. Materials charge optional.

404 INSTRUCTIONAL PROCEDURES IN ELEMENTARY EDUCATION

3 sem. hrs.

Study of selected instructional procedures employed in elementary education. Planning for instruction, determining of educational goals, nature of substantive content, and the uses of staff.

405 NURSERY-KINDERGARTEN EDUCATION

3 sem. hrs.

Criteria and procedures for developing, organizing, and administering early education programs. Intended for persons who plan to be responsible for the establishment and supervision of nursery-kindergarten programs.

421 CLASSICAL FUNCTIONS OF THE JUNIOR HIGH/MIDDLE SCHOOL

3 sem. hrs.

Study of the classical functions of early adolescent education and the relationship of these functions to contemporary institutional/instructional settings.

423 METHODOLOGICAL PATTERNS AND ISSUES IN EARLY ADOLESCENT EDUCATION

3 sem. hrs.

Examination of methodological patterns and issues in the education of early adolescents in upper grade/junior high/middle schools.

431 INDIVIDUALIZED FIELD WORK IN EDUCATION

2-3 sem. hrs.

Direct experiences in working with elementary or high school students, public school curricula, and staff and/or community groups involved in public school programs are provided. Approval for selecting this course and arranging for individual field work must be made by the dept. chairperson. This course is not to be used as a substitute for Student Teaching 399.

433 SELECTING AND DESIGNING COMPUTER SOFTWARE FOR SCHOOLS

3 sem. hrs.

The course will focus on helping educators analyze, select, and/or modify computer programs to meet instructional and curricular needs. Prerequisites: Graduate standing.

437 ANALYSIS OF TEACHING

3 sem. hrs.

A systematic examination of the theory and practice of teaching. Readings, mediated and direct observation. Emphasis on descriptive studies and conceptual models of teaching, their nature, and possible uses.

439 APPLIED HUMAN GROWTH AND DEVELOPMENT**3 sem. hrs.**

Application of principles of human growth and development in the classroom. Practice in the use of scientific procedures in the discovery of causes and the solution of classroom problems. Prerequisite: C&I 210 or consent of instructor.

441 EDUCATION OF THE GIFTED**3 sem. hrs.**

Survey of the field of education of the gifted. Deals with definition, identification, characteristics, programming, materials and evaluation of gifted students.

442 PROGRAM DEVELOPMENT FOR THE GIFTED**3 sem. hrs.**

Uses Bloom's Taxonomy and Guilford's Structure of Intellect to indicate techniques of program development for the Gifted which are quantitatively different and responsive to the capacity for higher thought processes. Evaluation of gifted programs and the review of programs and materials appropriate for gifted are included.

444 SUPERVISION OF GIFTED EDUCATION**3 sem. hrs.**

The supervision of instruction, staff development and program effectiveness for gifted education. Prerequisites: C&I 442, or consent of instructor.

450 LANGUAGE ARTS INSTRUCTIONAL STRATEGIES**3 sem. hrs.**

Analysis and application of learning theories and child growth and development principles to curriculum organization, instructional materials, and techniques for elementary school language arts programs.

452 ELEMENTARY SCHOOL SOCIAL STUDIES: INSTRUCTIONAL STRATEGIES**3 sem. hrs.**

Utilization of the structure, concepts, and modes in inquiry of the social sciences in implementing curriculum trends and innovations in elementary school social studies programs. Instructional strategies, such as inquiry and simulation, techniques for developing skills, understandings and attitudes characteristic of the social studies.

453 ELEMENTARY SCHOOL SCIENCE: INSTRUCTIONAL STRATEGIES**3 sem. hrs.**

Analysis and application of current research findings to the selection, construction, utilization, evaluation, and implementation of science instructional materials.

455 INSTRUCTIONAL SKILLS FOR INQUIRY TEACHING**3 sem. hrs.**

A study of verbal and non-verbal classroom (K-12) interactions including clinical experiences. Cognitive and affective strategies for achieving inquiry oriented objectives, and selection of learning materials conducive to inquiry learning.

457 INDIVIDUALIZING INSTRUCTION**3 sem. hrs.**

Methods, materials and activities for providing individualized instruction; teacher/student roles with emphasis focusing on the learner will be considered. Materials charge optional.

472 TEACHING IN THE COMMUNITY COLLEGE**3 sem. hrs.**

History and development, philosophic base, functions, purposes, characteristics of faculty and students, curricula and curriculum development, instructional methods, measurement and evaluation, and student services. The course is designed to improve instruction in the community college.

475 CLINICAL EXPERIENCES IN TEACHER EDUCATION**1-3 sem. hrs.**

Exploration of the role of clinical experiences in teaching and learning. Significant trends, philosophies and programs of teacher education. For experienced teachers and administrators associated with teacher education programs. The course is in three components and may be taken separately or in combination for 1, 2, or 3 hours. Materials charge optional.

476 CURRICULUM THEORY**3 sem. hrs.**

Basic theoretical assumptions which support existing curriculum models. Introduction to the process of curriculum development. Relation of the planning process elements to curriculum models. Materials charge optional.

477 SUPERVISION OF INSTRUCTION**3 sem. hrs.**

Fundamentals of supervision as it relates to improvement of instruction, teacher inservice, group leadership, evaluation of instruction, and staff development. Includes clinical experiences.

479 RESEARCH STUDIES IN ELEMENTARY CURRICULUM**3 sem. hrs.**

Examination of the professional literature that reports established trends, research efforts, and practice in elementary curriculum. Emphasis on the broad themes which transcend the separate disciplines in elementary education. Prerequisite: C&I 476, EAF 410 or consent of instructor. Materials charge optional.

487 ADVANCED EARLY CHILDHOOD DEVELOPMENT/EDUCATION**3 sem. hrs.**

The utilization of current concepts in early childhood development/education to be made available to graduate students who are working in schools and other appropriate educational settings. Prerequisite: Professional experience with children.

488 DESIGN AND IMPLEMENTATION OF CONTEMPORARY COMPREHENSIVE EARLY CHILDHOOD EDUCATION PROGRAMS**3 sem. hrs.**

The design and implementation of programs concerned with infants, toddlers, pre-kindergarten, and early elementary school children in educational settings. Prerequisite: Professional involvement in an agency or institution providing early childhood education programs.

490 IMPROVEMENT OF TEACHING PRACTICE**3 sem. hrs.**

Designed to aid graduate teaching assistants in meeting their instructional responsibilities. Emphasis on knowledge and skills needed by the beginning instructor. Open only to students in cooperating departments and not open to those who have post-secondary teaching experience or who have credit for C&I 491. Prerequisite: Consent of department.

491 INTERNSHIP IN COLLEGE TEACHING
3 sem. hrs.

Observation and teaching in the student's major area, with other experiences appropriate to academic involvement at the college level. Offered in cooperation and with the approval of the student's major department. Prerequisite: Graduate standing.

492 PERSPECTIVES OF TEACHER EDUCATION
3 sem. hrs.

For advanced graduate students preparing for positions associated with the preparation of teachers and specialized school personnel. Admission, curricula, instruction, certification, accreditation, evaluation, problems, issues, and trends in the selection and preparation of teachers. Prerequisite: Master's degree or consent of instructor.

496 SEMINAR IN ELEMENTARY EDUCATION
3 sem. hrs.

Prerequisites: 27-30 semester hours, formal Plan of Study filed, and accepted for candidacy for a Master's degree in Elementary Education.

498 PROFESSIONAL PRACTICE
3-8 sem. hrs.

Refer to General Courses.

499 MASTER'S THESIS
1-6 sem. hrs.

521 COLLOQUIUM: CURRICULUM, SUPERVISION/FACULTY DEVELOPMENT, INSTRUCTION
1-3 sem. hrs.

Examination of the impact of policy decisions related to curriculum, instruction and faculty development. Focus is on alternative responses to policy positions rather than new formulations. Prerequisite: C&I 476, advanced graduate standing, teaching experience and/or experience in instructional program development or consent of instructor. C&I 477, 437 are recommended.

523 SYSTEMS ANALYSIS APPROACH TO LEARNING
1-2 sem. hrs.

Student may enroll in any one or two of the three components for credit.^a

Component A - 1 semester hour

The goal referenced instructional learning model is explored as the basic theoretical foundation for the systems analysis approach to learning. The current status of the systems analysis approach in education today is described along with the use of behavioral objectives as the first step in the use of the systems approach.

Component B - 1 semester hour

Students select a curricular area in which the systems approach is applicable and design a modified system for it. At least one model self-instructional package is built as an integral part of that system.

Component C - 1 semester hour

Students select a system currently in operation, and using developed criteria evaluate that system. Adjustments to the system are then suggested and defended.

^aStudents wishing to earn three hours credit should enroll in COM 435.

524 SEMINAR IN EDUCATIONAL EVALUATION
3 sem. hrs.

A project/seminar approach to the application of theory to problems related to the measurement and/or evaluation of learning or instructional methods, materials or policies. Prerequisite: C&I 476 or consent of instructor.

530 CURRICULUM AND INSTRUCTIONAL PATTERNS IN POST-SECONDARY EDUCATION

2 or 3 sem. hrs.**

Readings on major curricular and instructional patterns in colleges, universities, continuing education, and personnel training programs. Emphasis on individualized study and reports.

****Variable credit option open only to D.A. students; all other students must enroll for 3 credit hours.**

531 THEORY AND DESIGN OF CURRICULUM POST SECONDARY EDUCATION

2 or 3 sem. hrs.**

Major curriculum theories are used for comparative analysis of curricular movements and as the basis for the design of curricular programs in post-secondary education.

****Variable credit option only to D.A. students; all other students must enroll for 3 credit hours.**

532 CURRICULUM DEVELOPMENT AND EVALUATION IN POST-SECONDARY EDUCATION

2 or 3 sem. hrs.**

Systematic applications of curriculum development/evaluation principles and models to meet institutional and program unit development needs.

****Variable credit option open only to D.A. students; all other students must enroll for 3 credit hours.**

535 THE STUDENT IN POST-SECONDARY EDUCATION

2 or 3 sem. hrs.**

Characteristics of older, disadvantaged, and "neo-traditional" post-secondary students in relation to developing programs which meet their diverse instructional, counseling, and administrative service needs.

****Variable credit option open only to D.A. students; all other students must enroll for 3 credit hours.**

537 ANALYSIS AND DESIGN OF INSTRUCTION IN POST-SECONDARY EDUCATION

2 or 3 sem. hrs.**

Systematic inquiry into instructional theory, practice, and design in colleges, universities, continuing education, and personnel training programs.

****Variable credit option open only to D.A. students; all other students must enroll for 3 credit hours.**

538 EVALUATION OF INSTRUCTION IN POST-SECONDARY EDUCATION

2 or 3 sem. hrs.**

Major conceptions, elements, and processes of instructional evaluation in colleges, universities, continuing education and personnel training programs.

****Variable credit option open only to D.A. students; all other students must enroll for 3 credit hours.**

576 PRINCIPLES OF CURRICULUM IMPROVEMENT

3 sem. hrs.

Examination of forces influencing curriculum improvement. Focuses on analysis of curriculum problems, rather than prescriptive answers. Prerequisite: C&I 476 or consent of instructor.

577 ADVANCED PRINCIPLES AND PRACTICES IN SUPERVISION

3 sem. hrs.

Course focuses on evaluation of instruction, in-service education, clinical supervision, supervisory skills. Research is applied in clinical settings. Prerequisite: C&I 477 or consent of instructor.

581 SEMINAR IN CURRICULUM EVALUATION
3 sem. hrs.

Enable doctoral level students to provide leadership in curriculum evaluation as carried on in public schools. Students in non-public educational institutions will also find the seminar useful. Prerequisite: C&I 476.

593 RESIDENT SEMINAR
1 sem. hr.

For advanced resident graduate students in education. May be repeated. Prerequisite: Advanced graduate standing.

594 RESEARCH SEMINAR IN EDUCATION
3 sem. hrs.

Designed for the development of a doctoral dissertation proposal ready for committee consideration. Various methodological and design components will be studied.

595 SEMINAR IN CURRICULUM
3 sem. hrs.

Major developments and experimental programs impacting upon institutional/agency curricula. Students identify curriculum innovations for research. Prerequisite: C&I 476.

598 DOCTORAL INTERNSHIP
3-6 sem. hrs.

An internship providing for the integration of academic content materials with the role expectations of professional personnel.

599 DISSERTATION RESEARCH
Variable credit

Research relating to research requirements for Doctor of Education degrees. Approval of the chairperson of the department of the program in which the student is enrolled is required.

EDUCATIONAL ADMINISTRATION AND FOUNDATIONS (EAF)

Chairperson: Mary Ann Lynn. Office: 331 DeGarmo Hall.
Graduate Faculty: V. Adams, R. Arnold, P. Baker, J. Brickell, R. Chaudhari, C. Eisele, D. Franklin, R. Halinski, G. A. Hickrod, E. Hines, P. Klass, R. Laymon, M. A. Lynn, F. Matsler, J. McCarthy, T. Nelson, G. Padavil, R. Riegle, H. Stern, W. Stimeling, D. Strand, K. Strand, C. Thomas.

Programs Offered

Work leading to a Master's degree, Certificate of Advanced Study, and the Ed.D. and Ph.D. degrees is offered in Educational Administration. Programs are also available for persons holding graduate degrees who wish to meet administrative certification requirements. The department also offers course work in the areas of educational foundations, research and evaluation.

Master's Degree Program

At least 27 semester hours of course work in Educational Administration and supervision as approved by the department as equivalent are required including C&I 476, 437 or 477, EAF 410, 478, 479, 481, and 485; SAS 465; and for the 39-hour master's degree program described below, EAF 482. Additional courses are selected with the recommendations and consent of the adviser in this curriculum. Students without teaching experience may be admitted to this program but will be expected to obtain experience in

education prior to certification for administrative positions in Illinois public schools.

University requirements for master's degree programs are listed elsewhere in this catalog. In addition to the regular requirements, a Master of Science in Education may be awarded in Educational Administration upon the completion of 39 hours of course work provided that the above requirements are met and at least six hours are taken in fields other than Education.

Programs in Special and Vocational Education Administration are offered in cooperation with the respective departments. Consult the chairperson of the appropriate department for details of the program.

Certificate of Advanced Study

The Department of Educational Administration offers a course of study leading to a Certificate of Advanced Study (CAS). The purpose of this sixth year of study is to permit students to specialize within the field of educational administration. Completing appropriate course requirements and having proper field experience may lead to General Administrative, Chief School Business Official, and/or Superintendent's endorsements.

The minimum course work for the CAS is 30 semester hours beyond the master's degree. Twelve semester hours are required with an additional eighteen hours taken from the area in which the student desires specialization. Candidates without masters' degrees in educational administration may have programs in excess of 30 semester hours for some areas of specialization and/or administrative endorsements. Regardless of specialization, all candidates are required to complete Educational Administration and Foundations 510, 582, 498 and one three-hour graduate level course outside the department. In addition, candidates seeking certification must have completed the necessary courses for the endorsement sought as a part of their master's degree or as part of the CAS program. Requirements for admission to the program and to candidacy are listed elsewhere in this catalog.

Doctoral Programs

The Department offers work leading to the Certificate of Advanced Study and the Ed.D. and Ph.D. degrees in Educational Administration. These degrees have as their major purpose the preparation of administrators in educational institutions and agencies at all levels. In addition, these degrees may prepare individuals for research positions in educational administration. University requirements for these degrees are listed elsewhere in this catalog.

COOPERATIVE PROGRAM WITH SPRINGFIELD EDUCATIONAL CONSORTIUM

Graduate level courses in educational administration are available through the Springfield Educational Consortium. Students may take approved courses on the Sangamon State University campus from the participating universities—Illinois State, Sangamon State, Southern Illinois—Carbondale, and Western—and receive commensurate credit toward an advanced degree in Educational Administration. Students interested in graduate level work should pursue with an ISU faculty adviser a Plan of Study incorporating course work at the Sangamon State University.

Certification Programs

Requirements for administrative endorsements may be met through the Certificate of Advanced Study or the degree programs in educational administration. However, individuals desiring administrative endorsements must also apply for these endorsements with the Director of Clinical Experiences and Certification Processes upon admission to one of these programs. All applicants for administrative endorsements must be admitted to the Certificate of Advanced Study or one of the degree programs.

The General Administrative, Superintendent and Chief School Business Official's endorsements all require teaching and/or administration experience. Students are also required to complete clinical experiences within their program of studies prior to being recommended for any endorsement. Students are requested to confer with personnel in the Office of Clinical Experiences in Teacher Education regarding these requirements.

Foreign Language Requirements for Ph.D. Candidacy

In general, the Graduate School requirements specify that a Ph.D. candidate must have 1) a reading knowledge of two foreign languages or 2) advanced knowledge of one language. However, when approved by the chairperson of the department of Educational Administration and Foundations, the Dean of the College of Education and the Dean of the Graduate School, a student may substitute for either of the above two language requirements any two of the following competencies:

1. Reading knowledge of one foreign language.
2. Competency in statistics as certified by the Department of Educational Administration and Foundations.
3. Competency in another research methodology other than 1 and 2 above certified by the Department of Educational Administration and Foundations and appropriate graduate faculty members external to the department.
4. Competency in a discipline for research purposes as certified by the Department of Educational Administration and Foundations and appropriate graduate faculty members external to the department.

Courses

326 SELECTED TOPICS IN THE PHILOSOPHY OF EDUCATION 1-3 sem. hrs.

Prerequisite: EAF 231 or upper level PHI course or consent of instructor. May be repeated.

331 HISTORY AND PHILOSOPHY OF EARLY CHILDHOOD EDUCATION 3 sem. hrs.

Emphasis given to major events and theories having an impact on Early Childhood Education in its contemporary form. Prerequisite: C&I 300 or 301.

401 INTRODUCTION TO MICROCOMPUTERS IN THE SCHOOLS 3 sem. hrs.

Provides teachers and administrators with appropriate information to evaluate and infuse microcomputers and software into an educational environment. Cross listed with ACS.

402 ADMINISTRATIVE APPLICATIONS OF MICROCOMPUTERS IN SCHOOLS 3 sem. hrs.

Development of Microcomputer skills for solving administrative problems; applications using word processing, spreadsheet analysis, data base systems, data analysis, and graphics. Prerequisite: EAF 401 or equivalent is recommended.

410 RESEARCH METHODOLOGY AND STATISTICS IN EDUCATION I 3 sem. hrs.

The development of basic skills required in the understanding, planning and executing of a research study; introduction to descriptive and inferential statistics.

411 EDUCATIONAL EVALUATION 3 sem. hrs.

A survey of models, designs, data analytic techniques, and issues of educational program evaluation, as well as issues and procedures of teacher and administrator evaluation. Design of an evaluation project is required. Prerequisite: EAF 410 or consent of instructor.

422 PHILOSOPHY OF EDUCATION 3 sem. hrs.

Philosophical inquiry into concerns basic to education. Emphasis on philosophical techniques, theories and their application to education. Prerequisites: Undergraduate course in foundations of education or consent of instructor. Formerly EAF 432.

424 COMPARATIVE EDUCATIONAL SYSTEMS 3 sem. hrs.

Comparative analysis of major ideas and institutions of selected national systems of education. Problems related to developments in American education. Formerly EAF 436.

425 HISTORICAL DEVELOPMENT OF EDUCATIONAL POLICY 3 sem. hrs.

Study of the development of instructional and administrative policies in American school systems. Formerly EAF 435.

426 SOCIAL AND EDUCATIONAL POLICY ISSUES 3 sem. hrs.

Analysis of the relationship between educational institutions and the larger society. Emphasis on race, religion, social class, youth sub-cultures, and the allocation of human resources. Prerequisite: Graduate standing.

428 SEMINAR IN FOUNDATIONS OF EDUCATIONAL POLICY 2-3 sem. hrs.

Intensive inquiry into the educational significance of problems generated by philosophical, comparative, or historical issues. Prerequisite: One graduate level course in the discipline appropriate to the study undertaken, or consent of instructor.

431 INDIVIDUALIZED FIELD WORK IN EDUCATION 2 or 3 sem. hrs.

(See C&I 431). Consent of department chairperson.

447 ADMINISTERING EDUCATIONAL PROGRAMS FOR EXCEPTIONAL CHILDREN 3 sem. hrs.

Principles and problems involved in organization, administration, planning and evaluation of educational programs for exceptional children.

473 ORGANIZATION AND ADMINISTRATION IN COMMUNITY COLLEGES

3 sem. hrs.

Community colleges are studied in relation to other institutions of higher education. Organizational structure, governance, finance, staffing, program administration, problems, issues, and trends will be included.

478 LEGAL BASES OF PUBLIC EDUCATION

3 sem. hrs.

Legal aspects of public education with emphasis on constitutional law, the Illinois School Code, and judicial rulings. Examination of rights and responsibilities of boards, administrators, teachers and students.

479 FINANCIAL BASES OF PUBLIC EDUCATION

3 sem. hrs.

Acquaints students with major concepts, research, and public policy controversies in school finance; includes equity, adequacy and efficiency in the allocation of public funds.

480 EDUCATIONAL FACILITIES PLANNING

3 sem. hrs.

School sites, buildings, and equipment with emphasis on planning of building programs.

481 ADMINISTRATION AND ORGANIZATION OF SCHOOLS

3 sem. hrs.

A survey of the principles of administration and organization of the school relating to the functioning of the public school system at the local, intermediate, state and national levels. Special attention is directed towards personnel practices, curriculum development, instructional improvement, interpersonal communication, and the relationship of school to community.

482 ADMINISTRATION SEMINAR

3 sem. hrs.

Culminating seminar for 39-hour master's degree program. Emphasis upon changing educational relationships, students' major concerns, and current problems. Prerequisite: Enrolled in last semester 39-hour program or after completion of required Educational Administration and Foundations courses, or consent of department chairperson.

483 MANAGEMENT OF EDUCATIONAL FUNDS

3 sem. hrs.

Develops competence and understanding in school finance, with emphasis on school business management. Includes cash-flow and investment management, budgeting and forecasting, fund accounting, financial statements, support services, data processing systems, and special problems of school fiscal planning and management. Prerequisite: EAF 479 or consent of instructor.

484 ADMINISTRATION OF CONTINUING EDUCATION AND PUBLIC SERVICE

3 sem. hrs.

Administration of continuing education and public service; emphasis upon developing, financing, staffing, sustaining, and administering continuing education and public service of all educational institutions. Prerequisite: Admission for graduate work.

485 THE PRINCIPALSHIP

3 sem. hrs.

Development and application of knowledge and competencies of the school building principal as instructional leader. Prerequisite: EAF 481 or consent of department chairperson.

486 PERSONNEL ADMINISTRATION

3 sem. hrs.

Provides general understanding of personnel functions in education. Special emphasis on staff development, communication, job analysis, recruitment, selection, collective bargaining, contract administration, and long range planning.

487 ORGANIZATION DEVELOPMENT

3 sem. hrs.

Emphasis will be on conceptual understanding and skill development in planned change, conflict management, interpersonal communications, group processes, and team building as they relate to improving organizations.

490 ADMINISTRATION OF VOCATIONAL EDUCATION

3 sem. hrs.

The unique aspects of administering vocational education; federal, state, and local controls; personnel and programmatic administration, anticipated future delivery systems.

492 POLITICS OF EDUCATION SEMINAR

3 sem. hrs.

Serves as a practical way to introduce the student to the effect and understanding of the methods of politics in the educational arena; emphasis on state level politics of education.

494 EDUCATIONAL PUBLIC RELATIONS

3 sem. hrs.

Issues and techniques of Public Relations as a two-way process: interpreting the public to the system as well as interpreting the system to the public as a basis for action.

496 BARGAINING IN EDUCATION

2-3 sem. hrs.

Issues and techniques of collective bargaining in education. The three-credit-hour offering includes additional research and experiences with contract language interpretation and analysis of grievances.

498 PROFESSIONAL PRACTICE

3-8 sem. hrs.

Refer to General Courses. Prerequisite: Recommendation of adviser at least two months prior to beginning of semester.

499 MASTER'S THESIS

1-6 sem. hrs.

510 RESEARCH METHODOLOGY AND STATISTICS IN EDUCATION II

3 sem. hrs.

Logic of statistical inference; introductory study of analysis of variance and multiple regression, with a computer oriented approach. Prerequisite: EAF 410 or equivalent.

511 RESEARCH METHODOLOGY AND STATISTICS IN EDUCATION III

3 sem. hrs.

Design of multi-variable studies, multivariate data analysis using statistical computer programs. Prerequisite: EAF 510 or equivalent.

512 RESEARCH METHODOLOGY AND STATISTICS IN EDUCATION IV

1-6 sem. hrs.

Provides for advanced study of research design and data analysis. Consult instructor prior to registration. Prerequisite: EAF 511 or consent of instructor.

520 FOUNDATIONS OF AMERICAN HIGHER EDUCATION**1-3 sem. hrs.**

Studies of the major historical and philosophic dimensions of American higher education and their relationship to significant contemporary issues.

522 PHILOSOPHICAL ANALYSIS OF EDUCATIONAL POLICY**3 sem. hrs.**

Systematic inquiry into the structure, process, and justification of educational policy and policy-making utilizing the techniques of philosophical analysis. Prerequisite: Advanced graduate standing or consent of instructor. EAF 426 and/or 422 are recommended.

523 PROFESSIONAL ETHICS IN EDUCATION**3 sem. hrs.**

Systematic inquiry into ethical issues faced by contemporary educators and philosophical techniques and theories which can help practitioners resolve them. Prerequisites: Advanced graduate standing or consent of instructor. EAF 422 recommended.

526 COMPARATIVE AND CROSS-CULTURAL ANALYSIS OF EDUCATIONAL POLICY**3 sem. hrs.**

Comparative and cross-cultural analysis of selected issues in education and implications for contemporary educational policy. Prerequisite: Advanced graduate standing or consent of instructor; EAF 424 is recommended.

528 SEMINAR IN EDUCATIONAL POLICY ANALYSIS**3 sem. hrs.**

Intensive inquiry into the comparative, philosophical, and/or historical dimensions of selected educational policies. May be repeated providing the subject matter is not repeated. Prerequisites: Advanced graduate standing and one graduate-level course in educational foundations.

535 HISTORICAL ANALYSIS OF CONTEMPORARY EDUCATIONAL POLICY**3 sem. hrs.**

Inquiry into the use of systematic historical methods for understanding contemporary educational policy problems and solutions. Prerequisite: Advanced graduate standing or consent of instructor. EAF 425 recommended.

548 ADVANCED SEMINAR ON LEGAL BASES OF EDUCATION**3 sem. hrs.**

For advanced graduate students in Educational Administration. Varied emphasis depending on interests of students and contemporary issues in school law. Prerequisites: EAF 481 and 478, or consent of instructor. May be repeated provided topics are not repeated.

561 ORGANIZATIONAL PATTERNS IN HIGHER EDUCATION**3 sem. hrs.**

Introduction to the literature of higher education. Extensive reading is required. Goals, organizational structure, policies, and practices of the administration of contemporary American higher and postsecondary education are included.

562 UNIVERSITY FISCAL ADMINISTRATION**3 sem. hrs.**

Collection and utilization of basic data for decision making, evaluating the educational environment, allocation and utilization of resources, and analysis of staffing patterns at the institutional level.

563 CRUCIAL ISSUES IN ADMINISTRATION OF AMERICAN HIGHER EDUCATION**3 sem. hrs.**

Issues, problems, and current topical concerns in the administration of higher education. Specific topics may vary and students will complete research projects on selected current critical issues.

564 PLANNING IN HIGHER EDUCATION**3 sem. hrs.**

Components, models, and approaches to planning in higher education. Includes needs assessment, master planning, self-study, outcomes, and the function of institutional research. Prerequisite: EAF 561 or consent of instructor.

570 PUBLIC FINANCE OF HIGHER EDUCATION**3 sem. hrs.**

An investigation of topics and problems in the public finance of higher education. Topics will vary each semester but the following will be included: Revenue policy and expenditure policy for higher education, program and performance budgeting and other efficiency concerns, investment in education and national economic growth, aspects of the business management of higher education.

571 COLLEGE ADMINISTRATION**3 sem. hrs.**

Academic and other college departments are analyzed in relation to institutional problems and trends. Departmental management issues will include governance, finance, staffing, academic administration, coordination, and evaluation.

575 SEMINAR IN SCHOOL BUSINESS MANAGEMENT**3 sem. hrs.**

Development of further skills in and knowledge of school business management. Content will vary with the needs of the students, but will focus on emerging problems in school business and financial management that require indepth study. Prerequisites: EAF 479, 483 or consent of instructor. May be repeated.

576 ADMINISTRATION OF INSTRUCTIONAL PROGRAMS**3 sem. hrs.**

Administrative strategies for implementation, maintenance, revision, and evaluation of instructional programs and curriculum. Prerequisites: EAF 485 and C&I 476 or consent of instructor.

578 LEGAL BASES OF HIGHER EDUCATION**3 sem. hrs.**

Overview of the law of higher and postsecondary education. Topics will vary, but the following will usually be covered: legal issues pertaining to students, faculty, college employees, administrators, trustees, and governance. Prerequisites: Advanced graduate standing and consent of instructor.

579 RESEARCH SEMINAR ON THE PUBLIC FINANCE OF EDUCATION**3 sem. hrs.**

Seminar for graduate students who wish to understand and conduct research on the financing of education, critique output from major research centers; jointly offered with ISU's Center for the Study of Educational Finance. Prerequisites: EAF 479 or equivalent.

582 ADMINISTRATIVE THEORY IN EDUCATION**3 sem. hrs.**

Overview of sociological and behavioral theories that are applicable to administration of various educational organizations. For persons holding a master's degree in any field.

583 SEMINAR IN EDUCATIONAL LEADERSHIP 3 sem. hrs.

Designed to provide an understanding of the leadership function in formal and informal organizations. Required of all doctoral candidates in administration. Prerequisites: EAF 582 and admission to the doctoral program.

584 SUPERINTENDENT AND CENTRAL STAFF 3 sem. hrs.

Development and assessment of knowledge, responsibilities, and competencies required of chief administrative officer, and in the case of larger districts, his/her central staff. Students may participate in a professional growth seminar. Prerequisite: Advanced graduate standing.

593 RESIDENT SEMINAR 1 sem. hr.

For advanced resident graduate students in education. May be repeated. Prerequisite: Advanced graduate standing.

594 RESEARCH SEMINAR IN EDUCATION 3 sem. hrs.

Designed for the development of a doctoral dissertation proposal ready for committee consideration. Various methodological and design components will be studied.

596 ADVANCED SEMINAR IN EDUCATIONAL ADMINISTRATION 3 sem. hrs.

Designed for advanced graduate students in Educational Administration. Content will vary according to the needs of students and the emerging problems that need in-depth study. May be repeated providing the subject matter is not repeated. Prerequisite: Advanced graduate standing.

599 DISSERTATION RESEARCH Variable credit

Research relating to research requirements for Doctor of Philosophy and Doctor of Education degrees. Approval of the chairperson of the department of the program in which the student is enrolled is required. Maximum of 16 semester hours credit in research may be counted toward residency.

SPECIALIZED EDUCATIONAL DEVELOPMENT (SED)

Chairperson: Ray E. Eiben. Office: Fairchild Hall 109.

Graduate Faculty: R. Baker, J. Bommarito, M. Bowen, F. Bowren, D. Bruyere, T. Caldwell, D. Cochran, A. Curtis, R. Eiben, I. Greif, R. Hemenway, T. Jones, J. Lee, J. Lian, D. Livers, R. Livingston, R. Meyering, W. Miller, L. Morreau, E. Rex, P. Smith, K. Stearns, D. Tucker, T. McCarty-Warren.

Programs Offered

Doctoral Program

The Department of Specialized Educational Development offers a Doctor of Education in Special Education which is an Illinois Regency Degree. The program leading to the degree is a joint program offered by Illinois State University and Northern Illinois University. The faculty and other resources of both universities are available to those students admitted to the Regency Doctor of Education in Special Education Program. The program is designed to prepare individuals in teacher education, special education program design/management, and research/evaluation in special education. Admission to the program normally requires possession of the master's degree and professional experience relevant to the education of exceptional chil-

dren and youth. The doctoral student's program is highly individualized, based on educational and professional experience and career plans. The student's program will include formal course work, independent study, field experiences, and a dissertation. A minimum of 60 hours, not including the dissertation, is required to complete the degree. Students who have completed a sixth-year program or have identified only post-master's degree competencies may petition for a waiver of up to 12 semester hours of the required 60 hours of work.

Master's Degree Programs

The department offers Master's degrees in the areas of Counselor Education, Reading, and Special Education. Each of these areas, their specific programs and requirements, are presented in the following section.

Counselor Education

The master's degree in Counselor Education requires a minimum of 48 semester hours of graduate work in Counselor Education and related subjects. A student may work toward a Master of Arts, a Master of Science, or a Master of Science in Education degree by fulfilling the requirements specified in this catalog. Students in Counselor Education select one of the following sequences:

School Counseling. Prepares counselors for public and private educational settings covering the elementary through post-secondary spectrum. Persons completing this program who have a valid teaching certificate ordinarily will be eligible to apply for the Type 73 School Service Personnel Certificate required for grade K-12 guidance counselors in Illinois.

Counseling in Higher Education. Prepares counselors for junior and senior colleges, and other counseling oriented positions in higher education.

Human Services Counseling. Prepares counselors for consultation and education components of community social service agencies; human development specialists for in-service training positions in education, business and human services agencies; and student development practitioners for two- and four-year colleges.

Admission to the Counselor Education Program

A student desiring to be admitted to the graduate program in Counselor Education must meet the requirements for admission to the Graduate School which have been outlined elsewhere in this catalog. In addition, to be admitted to the Counselor Education Degree Program, a student must have at least a 3.0 GPA (on a 4.0 scale) for the last 60 hours of undergraduate work and be recommended by the Counselor Education Selection Committee. Interested persons should contact the Coordinator of the Counselor Education Program for information about admission procedures.

Admission to Degree Candidacy/Practicum

Following the completion of 21 hours, with a GPA of 3.25 or above, a graduate student in Counselor Education must apply for candidacy/practicum.

Requirements for candidacy of all sequences include the completion of a tentative Plan of Study and a Request to take Practicum and Internship Form (available from Program Area).

Required Courses

Students in all sequences are required to complete a common core of courses composed of general areas considered to be necessary in the preparation of counselors and human services educators. Areas include human growth and development, social and cultural foundations, the

helping relationship, groups, life style and career development, appraisal of the individual, research and evaluation, and professional orientation. In addition the various sequences include specialized studies necessary for practice in different work settings. The specific courses which are required are outlined in the Advisement Handbook for Counselor Education.

Graduation

The Master's Degree in Counselor Education requires a minimum of 48 semester hours of graduate study with an overall GPA of at least 3.25. Included in this program the student must have completed both SED 462, Practicum in Counselor Education, and SED 498, Professional Practice with grades of B or better.

Reading

Requirements for a Master of Science in Education with concentration in reading will vary somewhat depending upon the area or level of reading in which the graduate student plans to concentrate. However, all students are expected to have a common base of knowledge about reading processes, diagnosing reading abilities, and providing desirable programs in reading.

Students who elect an M.S. in Education with a concentration in reading will be required to have a minimum of one undergraduate course in reading.

All students in the reading program will be expected to complete successfully at least one reading practicum. Assignment of academic advisement of students will depend on their selection from among the following areas:

Remedial Reading. Major concentration upon diagnosis and the educational accommodation of special cases of severe reading disability.

Elementary School Reading. Concentration upon the roles of teachers and reading consultants in developmental reading programs for elementary education.

General, Secondary, and Higher Education Reading. Developmental programs and general functions of reading specialists or consultants and the kinds of services provided in general, secondary, or higher education.

The following courses are required in each of the above areas:

1. EAF 410, C&I 476, and one course in history, philosophy, or social foundations of education.
2. 18 semester hours of study from among the following reading courses as advised: SED 301, 302, 304, 305, 306, 402, 403, 406, 407, 408, 409, 419, and 420. Other courses, workshops, etc., in reading may be used to fulfill the requirements in item 3 below, but they cannot be used to substitute for the courses listed above.
3. Additional courses to complete the program requirements as advised.
4. Additional courses are selected following recommendations of the adviser with the approval of the Chairperson, Department of Specialized Educational Development.

K-12 Reading Certificate

Course work leading to the Special K-12 reading certificate is offered by the department. The major purpose of the program is to provide candidates with the appropriate training for teaching developmental and remedial reading from Kindergarten through twelfth grade or beyond. The program leading to the special K-12 reading certificate requires the completion of 32-33 semester hours in reading and related educational areas.

Special Education

A student may work toward a Master of Arts, a Master of Science, or a Master of Science in Education degree by fulfilling the requirements specified in this catalog. Graduate work for the Master's degree is offered in the following sequences: Learning and Behaviorally Disordered, Deaf and Hard of Hearing, Educable Mentally Handicapped, Trainable Mentally Handicapped, Physically Handicapped, Visually Handicapped, and Severely and Profoundly Handicapped. To be eligible to enroll in SED 345, 346, 349, 351, 354, 355, 359, 371, 373, 385, 431, and 498, a student must have a cumulative GPA of 3.0 for all graduate work taken. Departmental requirements and options for the master's degree are listed below.

Option 1 is a 32 semester hour program including a thesis. The student must complete at least 15 semester hours in Education and/or Psychology including EAF 410, SED 440, PSY 301 or 302 and 4 to 6 semester hours of thesis credit. At least 15 hours must be in courses numbered at the 400 level or above. Additional courses to meet program requirements are selected following recommendations of an adviser.

Option 2 is a 32 semester hour program of course work including a comprehensive examination. Course requirements are the same as Option 1, but thesis credit is not required.

Option 3 is a 39 semester hour program of course work. The student must complete EAF 410, SED 440, 446 (specific to area of concentration), 445, and 482. At least 18 semester hours must be in courses numbered at the 400 level or above. Additional courses to meet program requirements are selected following recommendations of an adviser.

Through the Department of Curriculum and Instruction graduate students may take course work in Early Childhood Education to complement their special education preparation.

A program in administration and special education is offered in cooperation with the Department of Educational Administration and Foundations.

Students who are working toward a master's or doctoral degree and who are also taking course work leading to certification or an endorsement by entitlement should complete an Intent to File for Certification form in the Office of Clinical Experiences and Certification Processes. All students who plan to receive certification in the State of Illinois via an approved ISU program must file official forms and follow specific procedures. Certification is not given automatically at the completion of specified course work or degree work.

Courses

301 LABORATORY READING METHODS

3 sem. hrs.

Supervised clinical experiences in the diagnosis and instruction for Elementary and Junior High School students experiencing reading problems. May include off-campus clinical experiences. Students responsible for transportation to clinical sites. Prerequisite: SED 220 or consent of dept. chairperson or C&I 251.

302 ADVANCED READING METHODS

3 sem. hrs.

Practical problems using group evaluation. Techniques in selecting reading materials in elementary classrooms. Integrates reading with skill development activities. Prerequisites: SED 220 or C&I 251, or consent of instructor.

**304 READING DEVELOPMENT: EARLY
ELEMENTARY**
3 sem. hrs.

Extension and integration of the concepts and skills utilized in teaching reading and other subjects in the early elementary years. Prerequisite: SED 220 or C&I 251. Includes clinical experience.

**305 PRE-FIRST GRADE READINESS FOR
READING**
3 sem. hrs.

Enables the student to present pre-reading and beginning reading skills to pre-first grade children. Prerequisite: C&I 251 or SED 220, or an equivalent course. Includes a practicum and clinical experience.

**306 READING DEVELOPMENT FOR EARLY
ADOLESCENCE**
3 sem. hrs.

Provides the junior high/middle school person with knowledge, skills, and abilities to work with the developmental reading growth of early adolescence. A practicum experience is provided. Includes clinical experience.

**313 SPECIAL ADAPTATIONS FOR
INDIVIDUALS WITH VISUAL
DISABILITIES**
1 sem. hr.

Not for credit to students specializing in Visually Handicapped. Implications of visual disabilities for the individual in educational, travel, vocational, and other settings. Includes clinical experience.

**314 SPECIAL ADAPTATIONS FOR
INDIVIDUALS WITH PHYSICAL
DISABILITIES**
1 sem. hr.

Not for credit to students specializing in Physically Handicapped. Implications of physical disabilities for the individual in educational, travel, vocational and other settings. Includes clinical experience.

**315 SPECIAL ADAPTATIONS FOR
INDIVIDUALS WITH HEARING
DISABILITIES**
1 sem. hr.

Not for credit to students specializing in Hearing Disabilities. Implications of hearing disabilities for the individual in educational, travel, vocational and other settings. Includes clinical experience.

**330 THE LANGUAGE OF SIGNS AND
FINGERSPELLING**
2 sem. hrs.

Beginning course in developing expressive and receptive sign language and fingerspelling. Lab required.

331 AMERICAN SIGN LANGUAGE
2 sem. hrs.

Advanced course in American Sign Language including conversational sign and sign linguistics. Prerequisite: SED 330.

343 MENTAL RETARDATION
3 sem. hrs.

Medical, psychological, and sociological characteristics and behavior of the mentally retarded. Methods of classification, causes, and rehabilitative aspects.

**345 EDUCATION OF THE TRAINABLE
MENTALLY HANDICAPPED**
3 sem. hrs.

Classroom organization strategies, teaching methods and materials for curriculum content areas across the psychosocial, applied and cognate domains for TMH individuals from birth through adulthood. Materials charge optional.

Prerequisites: Successful completion or concurrent enrollment in SED 244 (or 445) and 343. Concurrent registration in appropriate clinical experience (SED 245 or 431). Includes off-campus clinical experiences. Students responsible for transportation to clinical sites.

**346 EDUCATION FOR THE EDUCABLE
MENTALLY HANDICAPPED**
4 sem. hrs.

Objectives, curriculum and methods for teaching educable mentally handicapped individuals. Materials charge optional. Prerequisite: SED 343 or 410 or consent of department chairperson. Includes off-campus clinical experiences. Students responsible for transportation to clinical sites.

**349 EDUCATIONAL DIAGNOSIS AND
TEACHING OF THE PHYSICALLY
HANDICAPPED**
4 sem. hrs.

Formerly Education of the Physically Handicapped. Application of educational diagnosis to educational programming and teaching of physically handicapped individuals. Prerequisite: SED 385 or consent of instructor. Concurrent registration in appropriate clinical experience (SED 245 or 431).

350 INTRODUCTION TO VISUAL HANDICAPS
3 sem. hrs.

Nature and needs of the visually handicapped, infants to adults. Includes clinical experiences. Prerequisite: SED 145, 450 or consent of department chairperson. Concurrent registration in 431.

**351 EDUCATION AND ASSESSMENT OF THE
VISUALLY HANDICAPPED**
3 sem. hrs.

Application of educational diagnosis to educational programming and instruction of visually handicapped individuals. Prerequisites: SED 350 and 356, or consent of department chairperson. Includes clinical experience. Students responsible for transportation to clinical sites.

352 BRAILLE READING AND WRITING
3 sem. hrs.

Preparation in reading and writing using the Braille Literary Code. Includes an introduction to Braille Textbook Format. Prerequisite: BEA 108 or proficiency in typing, or consent of department chairperson. Materials charge optional.

353 EDUCATION OF THE DEAF
2 sem. hrs.

Psychological, social, historical, and educational problems relating to education of the hearing impaired. Prerequisite: SED 145, 450 or consent of department chairperson. Materials charge optional.

**354 THE TEACHING OF SPEECH TO THE
DEAF**
4 sem. hrs.

Principles and techniques of developing and teaching speech to hearing-impaired students at all school levels. Prerequisites: SED 355, PAS 211 or consent of department chairperson. Includes clinical experiences.

**355 THE TEACHING OF LANGUAGE TO THE
DEAF**
4 sem. hrs.

Principles and techniques of teaching language to hearing-impaired students at all school levels. Prerequisite: SED 330, 353 or consent of department chairperson. Includes clinical experiences.

356 COMMUNICATION SKILLS FOR THE VISUALLY HANDICAPPED
3 sem. hrs.

Preparation in reading and writing using Nemeth Code, in teaching mathematics and communication skills to visually handicapped individuals. Prerequisite: BEA 108 or equivalent and SED 352. Materials charge optional.

357 ORIENTATION AND MOBILITY FOR CLASSROOM TEACHERS
2 sem. hrs.

Practicum in basic daily living skills and rudimentary mobility techniques.

359 THE TEACHING OF READING AND SCHOOL SUBJECTS TO THE DEAF
4 sem. hrs.

Teaching reading to hearing-impaired students at all school levels, with a practicum in reading and the other core subjects. Prerequisite: SED 355. Includes clinical experiences.

360 FOUNDATIONS OF COUNSELING
3 sem. hrs.

Backgrounds, philosophy, and services in counseling and human service programs. Conceptual models emphasize educational, developmental, and preventive approaches to planned change.

362 BASIC SKILLS IN COUNSELING
3 sem. hrs.

Introduction to and laboratory practice in the basic procedures and skills of counseling. Lecture and Laboratory.

363 CHILD AND FAMILY COUNSELING
3 sem. hrs.

Theories and techniques of child management, consultation procedures, parent and family education, and counseling.

370 INSTRUCTIONAL PROGRAMMING FOR THE HANDICAPPED
3 sem. hrs.

Procedures for determining individual behavioral needs, designing instructional sequences, implementing behavior change programs, and evaluating effects of programs for disabled individuals. Materials charge optional.

371 EDUCATION OF SEVERELY AND PROFOUNDLY HANDICAPPED INDIVIDUALS
3 sem. hrs.

Implementation of educational programs for severely and profoundly handicapped individuals. Observation and participation required. Includes clinical experiences. Materials charge optional.

372 EDUCATIONAL DIAGNOSIS OF SEVERELY AND PROFOUNDLY HANDICAPPED INDIVIDUALS
3 sem. hrs.

Application of diagnostic skills to the assessment of severely and profoundly handicapped individuals, designing individualized programs, and evaluating client progress and program effectiveness. Materials charge optional.

373 SPECIAL EDUCATIONAL INTERVENTION WITH PARENTS OF HANDICAPPED INDIVIDUALS
3 sem. hrs.

Theoretical and practical aspects of providing special educational intervention to parents of handicapped learners. Prerequisites: Child Growth and Development; C&I 210; a teaching methods course, or equivalent.

374 EDUCATIONAL ASSESSMENT OF THE PRESCHOOL HANDICAPPED CHILD
3 sem. hrs.

Techniques and issues involved in gathering, analyzing and synthesizing data for developing and monitoring individualized programs for preschool handicapped children. Prerequisites: SED 145, 450 or equivalent, or consent of instructor. Materials charge optional.

380 EMPLOYMENT ANALYSIS FOR THE EXCEPTIONAL
3 sem. hrs.

Diagnosis and instruction of exceptional students who are placed in occupational education. Synthesizing employment and education for exceptional students. Materials charge optional. Also offered as IT 307.

385 PHYSICAL DEFECTS: SURVEY AND REHABILITATION
3 sem. hrs.

Identification and treatment of physical defects of handicapped children, special services, equipment, and procedures for school programs. Prerequisite: BSC 381 or HPR 282. Also offered as HPR 385. Includes clinical experiences.

400 INDEPENDENT STUDY
1-4 sem. hrs.

402 RECENT RESEARCH IN READING
3 sem. hrs.

Analysis of recent research in reading at all levels with implications in reading instruction, materials of instruction, and teacher preparation.

403 PSYCHOLOGY OF TEACHING READING
3 sem. hrs.

The study, analysis and investigation of linguistic and psychological aspects of the act of reading.

407 TEACHING READING IN THE CONTENT AREAS
3 sem. hrs.

Instructional methods and materials designed to integrate reading instruction with subject-matter instruction relative to grades 4 through 12. Prerequisite: One course in reading.

408 DIAGNOSIS AND CORRECTION OF READING DISABILITIES
3 sem. hrs.

Study in the causes and remediation of reading disabilities. Research findings will be utilized for suggested diagnosis and correction of various types of reading problems.

409 PRACTICUM FOR ELEMENTARY READING SPECIALISTS
3 sem. hrs.

Designed for classroom teachers to help pupils overcome their reading problems. Students will become acquainted with ways of correcting reading difficulties. Prerequisite SED 408. Includes clinical experience.

410 EDUCATIONAL ASSESSMENT AND PLANNING FOR EXCEPTIONAL CHILDREN AND YOUTH
3 sem. hrs.

Assessing educationally relevant behaviors of exceptional pupils and developing specific educational plans based on assessed strengths and weaknesses.

419 SEMINAR IN READING
3 sem. hrs.

Group and individual research of current reading practices, trends, and issues in reading will be employed. Prerequisite: 9 semester hours of graduate reading work.

420 TEACHING ADULTS TO READ**3 sem. hrs.**

Explores the nature and needs of the population of reading programs for adults. Goals, techniques, content, and materials are studied. Prerequisite: One course in reading methodology.

421 NATURE AND NEEDS OF THE LEARNING DISABLED STUDENT**3 sem. hrs.**

Educational characteristics, classification systems, theoretical approaches to etiology, assessment systems and services for children/youth with learning disabilities. Prerequisite: SED 450 or equivalent survey course or consent of instructor.

422 TEACHING STUDENTS WITH LEARNING DISABILITIES**3 sem. hrs.**

Curriculum, instructional objectives, methods and materials for educating children/youth with learning disabilities. Materials charge optional. Prerequisites: SED 421 or equivalent, or consent of instructor.

431 INDIVIDUALIZED FIELD WORK IN EDUCATION**2-3 sem. hrs.**

Direct experiences working with handicapped individuals. Approval for arranging sites and credits must be determined by the department chairperson. This course is not to be used as a substitute for STT 399.

440 PROBLEMS IN SPECIAL EDUCATION**3 sem. hrs.**

Advanced study to explore topical problems in special education. Various areas of exceptionality studied.

445 CURRICULUM DEVELOPMENT FOR SPECIAL NEEDS STUDENTS**3 sem. hrs.**

Designed to aid students in the development of curriculum and methods suited to the particular problems of special needs students.

446 SEMINAR IN SPECIAL EDUCATION AND REHABILITATION**2 sem. hrs.**

Seminar in various areas of special education and rehabilitation. Type 01 Visually Handicapped; Type 04 Learning Disabilities. Consult the Class Schedule for the seminars to be offered in any given semester. Prerequisite: Consent of instructor.

447 ADMINISTERING EDUCATIONAL PROGRAMS FOR EXCEPTIONAL CHILDREN**3 sem. hrs.**

Principles and problems involved in administration of educational programs for exceptional children. Also offered as EAF 447.

448 INSTRUCTIONAL PROCEDURES FOR EMOTIONALLY DISTURBED PUPILS**3 sem. hrs.**

Assessing educational and behavioral needs of students and designing instructional and behavioral management programs. Prerequisites: PSY 347 or equivalent, or consent of the instructor.

450 SURVEY OF SPECIAL EDUCATION**3 sem. hrs.**

Focus on the physiological, psychological, sociological and educational impact of handicapping conditions on all exceptional children and youth.

452 PARENT AND COMMUNITY INVOLVEMENT IN SPECIAL EDUCATION**3 sem. hrs.**

Understanding parents of handicapped individuals and their communities. Designing, implementing and facilitating programs which enhance involvement in special education.

460 APPRAISAL METHODOLOGIES FOR COUNSELORS**3 sem. hrs.**

The administration and interpretation of appraisal techniques appropriate to the student's level of interest: elementary, secondary, or higher education. Special emphasis on student self-appraisal.

461 ORGANIZATION OF COUNSELING AND HUMAN SERVICE PROGRAMS**3 sem. hrs.**

The activation, organization, administration, and utilization of helping programs in schools and human service agencies. Culminating seminar for the master's degree program. Provides opportunities to synthesize course content, concepts, and skills of the program.

462 PRACTICUM IN COUNSELOR EDUCATION**3-9 sem. hrs.**

Supervised experience in individual and/or small-group counseling or human services education. May be repeated for credit for a total of nine semester hours. Prerequisite: 21 semester hours of graduate work in Counselor Education degree program.

463 THEORY AND PRACTICE IN GROUP COUNSELING**3 sem. hrs.**

Participation in a structured and nonstructured group experience with associated study of interpersonal relationships. Includes study of leadership styles, techniques, and interventions within framework of relevant theories. May be repeated for credit for a total of six semester hours.

464 THEORIES AND TECHNIQUES OF COUNSELING**3 sem. hrs.**

Goals, methods, and procedures as seen from a number of differing theoretical positions. Emphasis on interpersonal dimensions of counseling interviews. Cross listed in CJS and PSY.

465 VOCATIONAL COUNSELING**3 sem. hrs.**

Acquiring and using occupational and educational information. Consideration of job requirements and training opportunities; developing occupational units; nature of vocational development. Also offered as PSY 465.

466 COUNSELING IN HIGHER EDUCATION**3 sem. hrs.**

Problems and characteristics of counseling in community colleges, and other institutions of higher education.

467 ELEMENTARY SCHOOL COUNSELING**3 sem. hrs.**

Counseling and guidance services for the elementary school with major emphasis on application of counseling theory, technique, and practice to the elementary school setting.

468 ORGANIZING AND DEVELOPING LIFE SKILLS TRAINING PROGRAMS**3 sem. hrs.**

Skills areas include: Relaxation, interpersonal communication, values clarification, assertiveness and self-management. (2 hours lecture and 2 hours laboratory). Prerequisites: SED 362 or equivalent.

469 CONSULTATION AND RESOURCE DEVELOPMENT IN HUMAN SERVICES**3 sem. hrs.**

Presentation of consultation as a preventive counseling intervention, emphasizing fundamental theoretical orientations, basic methods of program development, and related skills.

470 CONTEMPORARY TOPICS IN COUNSELOR EDUCATION**3 sem. hrs.**

Differing topical emphasis based upon the areas of student interest and current developments in Counselor Education. May be repeated if topic and content are different. No more than 3 hours may be counted toward the master's degree for the thesis and comprehensive options; a maximum of 9 hours for a student taking the 39 hours master's program. Prerequisites: advanced graduate standing in Counselor Education, or equivalency, and permission of chairperson.

471 LIFE STYLE AND CAREER DECISIONS**3 sem. hrs.**

Presentation of life style concepts and career decision making theory with emphasis on design and implementation of career development programs.

472 ENVIRONMENTAL ASSESSMENT AND DESIGN**3 sem. hrs.**

The course covers methods of assessing environmental effects, their relationship to human behavior, and improvement of human system transactions.

473 PROGRAM DEVELOPMENT AND EVALUATION**3 sem. hrs.**

Presents concepts and methods contributing to the creation of structured developmental-preventive interventions and to the assessment of their effectiveness.

482 SEMINAR IN SPECIAL EDUCATION**3 sem. hrs.**

Culminating seminar for 39-hour master's degree program. Provides opportunities to synthesize course content, concepts and skills of program. Prerequisites: EAF 410, SED 440, completion of 24 semester hours, and approved Plan of Study.

498 PROFESSIONAL PRACTICE**3-8 sem. hrs.**

Refer to General Courses.

499 MASTER'S THESIS**1-6 sem. hrs.****500 INDEPENDENT STUDY****1-4 sem. hrs.****503 SEMINAR IN SPECIAL EDUCATION PROGRAM DESIGN AND DEVELOPMENT****3 sem. hrs.**

Application of program design and development strategies in special education. Prerequisites: Advanced degree standing and consent of instructor.

504 IMPLEMENTING FAMILY BASED EDUCATION**3 sem. hrs.**

Emphasis placed upon methods and supportive services aimed at changing parental attitudes and behaviors and accelerating the child's progress.

512 ADVANCED APPLIED RESEARCH IN SPECIAL EDUCATION**2 sem. hrs.**

For advanced graduate students preparing to conduct research in school and related settings. Prerequisites: EAF 510. May be repeated with consent of instructor.

513 SEMINAR IN EVALUATION OF SPECIAL EDUCATION PROGRAMS**2 sem. hrs.**

Prepares personnel to evaluate the effectiveness of special education programs. Prerequisites: Admitted to doctoral program in Special Education, consent of instructor.

514 PERSONNEL PREPARATION IN SPECIAL EDUCATION**3 sem. hrs.**

An introduction to processes and applied practice in curriculum development, instruction, supervision, advisement, evaluation, and professional development for pre-service and inservice education in special education. Prerequisite: Advanced graduate standing.

540 SEMINAR IN CONTEMPORARY TOPICS IN SPECIAL EDUCATION**3 sem. hrs.**

Contemporary topics related to issues of identification, assessment, intervention and other problem areas. Prerequisites: SED 440, and/or consent of instructor.

547 SEMINAR IN ADVANCED COORDINATION OF SPECIAL EDUCATION**3 sem. hrs.**

An advanced seminar in the coordination of special education programs in educational settings. Emphasis is on the administrative skills and knowledge required to design and implement programs consistent with established public policy in the subject area. Topics include: planning for special education programs, program development, program operation and management, staff selection and development, the federal-state-local system of services, budgeting and fiscal management, and program evaluation and reporting. Prerequisites: EAF 447, 478, 479 or consent of instructor.

593 RESIDENT SEMINAR**1 sem. hr.**

For advanced resident graduate students in Specialized Educational Development. May be repeated. Prerequisite: Advanced graduate standing.

594 RESEARCH SEMINAR IN EDUCATION**3 sem. hrs.**

Designed for dissertation proposal development for doctoral (and specialist) students. Emphasis on the design of a proposal ready for committee consideration.

598 PROFESSIONAL PRACTICE**1-12 sem. hrs.**

An internship in teaching, research or program development providing for integration of academic course work with role expectations or professional personnel. Prerequisite: Admission to the Regency Doctoral program in Special Education.

599 DISSERTATION RESEARCH**Variable credit**

Research relating to research requirements for Doctor of Education degrees. Approval of the chairperson of the department of the program in which the student is enrolled is required.

COLLEGE OF FINE ARTS

Dean: Charles Bolen. Office: Room 116 Center for Visual Arts

The primary function of the College of Fine Arts and its Departments of Art, Music, and Theatre is to provide professional education in the arts for students preparing to be elementary, secondary, and college teachers and for students desiring professional careers in select areas of the arts. Various areas of concentration and degree programs in undergraduate and graduate studies, including M.M., M.A., M.S., M.M.Ed. and M.F.A. programs and an Ed. D. program in Art, provide flexible curricula for a variety of student talents and research interests. The College also provides a cultural environment through the performing and visual arts for the campus, community, and region.

ART

Chairperson: Edward Forde. Office: Center for the Visual Arts Room 119.

Director of Doctoral Studies: Jack Hobbs.

Director of Masters Studies: Kenneth A. Holder.

Graduate Faculty: S. Amster, F. Anderson, H. Boyd, J. Butler, W. Colvin, R. Finch, E. Forde, D. French, R. George, H. Gregor, H. Hanlon, W. D. Hartley, J. Hobbs, K. Holder, R. Jackson, D. Kilgo, K. Knoblock, T. Malone, B. Moore, J. Myers, M. Newby, M. Rennels, R. Salome, E. R. Steff, C. L. Steinburg, J. Suhr, P. Tannura, D. Tell, N. Towner.

The Department offers work leading to the following degrees: M.A., M.S., M.F.A., and Ed.D. General University requirements for degrees are described elsewhere in this catalog.

The Department reserves the right to keep examples of original work produced by graduate students for its permanent collection of student art work.

Master's Degree Programs

The master's degree in Art requires a minimum of 32 hours including a master's thesis or a comprehensive examination. A candidate for the degree must spend at least one full term in residence in order to qualify for the degree. A full term may be interpreted as one semester with a class load of 9-15 hours, or a summer session with a class load of 6-9 hours.

To enter one of three available master's programs the applicant must meet the minimum requirements of the Graduate School and pass a portfolio review in the Department. (Portfolios are to be sent to the Director of Master's Programs, c/o the Art Department.) Work toward the degree may occur before passing the portfolio review, but a student is not allowed to apply more than 12 hours before passing the review.

For entering a program in Art Education, the portfolio must include a plan of studies, one example of scholarly writing, and a portfolio of the student's art work. (In lieu of art work the applicant may have a recommendation(s) sent from his/her employer(s) to the Department.)

For entering a program in Studio, the portfolio must

include a plan of studies, examples of art work (slides are preferred), and one example of scholarly writing.

For entering a program in Art History, the portfolio must include a plan of studies and at least 3 examples of scholarly writing.

Sequence in Art Education

401 Foundations of Art Education.	3 hours
402 Issues in Art Education.	3 hours
403 Curriculum in Art Education	3 hours
Electives in courses and/or Special Projects in Art Education	6 hours
Total	15 hrs.

The rest may be chosen from a wide range of fields which are relevant to art or education and which reflect the student's interests. Some examples are: an area of Studio Art, Curriculum, Psychology, Special Education, Community Art Programs, College Level Art, and Humanities. A comprehensive examination or thesis is required of each student at the end of the program.

Concentration in Art Studio

Each student is expected to do a concentration in one of the following disciplines: painting, sculpture, printmaking, ceramics, weaving, jewelry, design, photography, drawing, or glassblowing. Although a program is developed in consultation with an adviser with the student's interests in mind, a typical program includes at least 15 hours of 444 Problems in Studio Work (in one of the above studio areas), 3 hours of 451 Special Projects in Art, and 6 hours of Art History. A graduate show (as a part of the comprehensive examination) is required of each student at the end of the program.

Concentration in Art History

Only the M.A. is offered in Art History. Students who have not satisfied the language requirement before entering the program must do so as early as possible while pursuing the program.

A program in Art History consists of at least 18 hours of course work in the Art History area (of these at least 12 must be at the 400 level), 6 hours in related fields outside the Department (history, literature, anthropology, etc.), and 4-6 hours of 499 Thesis.

Master of Fine Arts

The Master of Fine Arts in Art is a 60-hour program that emphasizes both the theory and practice in the production, history, and teaching of the visual arts. Candidates will be expected to demonstrate artistic proficiency in at least one of the following disciplines: painting, sculpture, printmaking, ceramics, weaving, jewelry, design, photography, drawing, or glassblowing. Candidates will also be expected to demonstrate an ability to communicate ideas in a written and oral manner.

Since a primary objective is to prepare teachers for higher

education, students will also be expected to participate in an experience of internship or apprenticeship. This may take the form of a guided teaching experience or work in a professional area related to the student's area of interest. (Conceivably this might involve local industry, school, etc.) The exact nature of this experience will be worked out through counseling between the major adviser and the student and will be tailored to best suit the needs of each student. This project will be subject to approval of the student's graduate committee.

It should be clearly understood that the accumulation of 60 semester credit hours is not the primary criterion in evaluating final achievement. Instead, it is the exhibition and demonstration of the student's competency and his/her intellectual maturity and that these expectations be deemed proficient in his/her area of the arts. In view of this, a major requirement will be a comprehensive showing of the student's visual work along with a written project and an oral examination of the intellectual implications of his/her work. A typical program for the Master of Fine Arts degree will include at least 60 semester hours of graduate work beyond the bachelor's degree. These 60 hours may be programmed as follows:

- A. At least 36 semester hours must be taken in the Art Department, of these at least 24 must be at the 400 level.
- B. At least 24 semester hours must be in the student's major studio area, of these at least 18 must be at the 400 level.
- C. At least 12 semester hours may be taken in art history, or nine hours may be taken in art history with three hours in related areas such as aesthetics, philosophy, or anthropology.
- D. At least three semester hours in an internship or apprenticeship program. The exact nature of this program will be determined by the student and his/her major adviser and designed to best suit the needs of the individual student.
- E. At least three semester hours of an elective outside the Art Department.
- F. Six hours of 496 MFA Exhibition and Supportive Statement. This will involve a comprehensive exhibition of studio work, an exhibition-related written project, and a comprehensive oral examination.

Doctor of Education Degree in Art

The degree requirements for the doctoral degree in the theory and practice of teaching Art have been structured for maximum flexibility. The individual student, with the approval of the Director of Doctoral Studies and later with his/her committee, may design a plan of study based upon both need and interest. The major studies are completed in the Art Department with a minor in any department which offers a graduate program. The student's specific course of study should facilitate transition through the program with professional competence and employability being the guide. All students who enter the program with less than five years of college teaching experience must take ART 421, Problems in Teaching Art in Higher Education. All students must take ART 401 Foundations in Art Education, ART 402 Issues in Art Education and ART 403 Curriculum in Art Education if they have not taken these courses, or their equivalents, in previous graduate work. Additionally, all students must take Art 597, Research Methodology. The sequential procedure leading to the completion of the degree requirements is as follows:

- A. Admission to program.
- B. A tentative study program planned in consultation with the Director of Doctoral Studies in Art.
- C. Admission to doctoral candidacy.
 1. Submission of a final plan of study.
 2. Comprehensive examinations following completion of approximately two-thirds of the planned course requirements.
 3. Approval of the dissertation topic by the student's committee and the Graduate School.
- D. Completion of degree requirements within eight years after beginning course work.
- E. Residency requirements for the doctoral program are two (2) consecutive semesters as a full-time student. This may also be one regular semester with a summer session.

Courses

307 ART FOR ATYPICAL INDIVIDUALS 3 sem. hrs.

Study of various approaches to the development and conduct of art activities for individuals in special education and other community programs for the atypical individual. Prerequisite: ART 207 or C&I 250.

309 PROFESSIONAL ART EDUCATION SEQUENCE 6 sem hrs (3 each semester)

Sequential semesters interrelate art learning theory, teaching methodology, and pre-student teaching clinical experiences in Art Education K-12. Not for credit if had Art 203 or 204. For Art Education majors, others by consent of department chairperson. Two consecutive semester sequence. Prerequisites: C&I 200 or 215 or concurrent registration.

324 JEWELRY III 2-6 sem. hrs.

Advanced metalworking with an emphasis on volume and color, including raising, repousse, forging and various enameling techniques. Prerequisite: ART 225. May be repeated. Materials charge optional. Variable credit. Amount of performance per credit to be determined by contract with instructor.

325 ADVANCED JEWELRY AND METALS 2-4 sem. hrs.

Elaboration upon metalworking skills previously acquired, allowing development of a strong personal direction. Prerequisite: ART 324 and consent of instructor. May be repeated. Materials charge optional. Variable credit. Amount of performance per credit to be determined by contract with instructor.

326 VISUAL COMMUNICATIONS III 3 sem. hrs.

Transitional course using the skills, techniques, and concepts learned earlier, applying them to problems of contemporary expression. Preparation for study on independent basis. Prerequisites: ART 226, 227. Materials charge optional.

328 CERAMICS III 2-6 sem. hrs.

Experiences in wheel and handbuilding processes with an emphasis on individual exploration of ideas through ceramic media. Prerequisite: ART 229. May be repeated. Materials charge optional. Variable credit. Amount of performance per credit to be determined by contract with instructor.

331 ADVANCED DRAWING**1-3 sem. hrs.**

Transitional course using the skills, techniques, and concepts learned earlier, applying them to problems of contemporary expression. Preparation for study on independent basis. Prerequisite: Art 214. May be repeated. Variable credit. Amount of performance per credit to be determined by contract with instructor.

332 SCULPTURE III**2-6 sem. hrs.**

Transitional course. Individualized problems exploring techniques and concepts encountered earlier and their application to problems of contemporary expression. Preparation for study on an independent basis. Prerequisite: ART 233. May be repeated. Materials charge optional. Variable credit. Amount of performance per credit to be determined by contract with instructor.

335 PHOTOGRAPHY AS AN ART FORM III**2-6 sem. hrs.**

Advanced problems in photography as an art form. Emphasis upon individual exploration of the medium. Prerequisite: ART 236 or consent of instructor. May be repeated. Materials charge optional. Variable credit. Amount of performance per credit to be determined by contract with instructor.

336 VISUAL COMMUNICATIONS IV**3 sem. hrs.**

Advanced studio work exploring design techniques applied to advertising, packaging and display media. Materials fee optional. Prerequisite: ART 326.

337 ADVERTISING LAYOUT**3 sem. hrs.**

Advanced studio work emphasizing advertising layout techniques and art direction responsibilities. Prerequisite: ART 326 or consent of instructor. Materials charge optional.

338 ILLUSTRATION FOR PUBLICATION**3 sem. hrs.**

Illustrating for print media; concepts and rendering techniques. Prerequisites: ART 104, 213, 227.

340 WEAVING III**2-6 sem. hrs.**

Advanced studio work based on the technical and aesthetic concepts presented in Weaving I & II. Emphasis upon individualized projects designed in consultation with instructor. Prerequisite: ART 241. May be repeated. Materials charge optional. Variable credit. Amount of performance per credit to be determined by contract with instructor.

341 PRINTED TEXTILES**2-3 sem. hrs.**

Studio exploration of the aesthetic concepts and technical skills for designing and executing printed textile designs; emphasis on silk screen. Materials charge optional. Prerequisites: ART 103 and ART 240, and consent of instructor. Students enrolling for three credits will be expected to master additional and more complex printing techniques and designs. May be repeated.

345 INTAGLIO II**2-6 sem. hrs.**

Further study of intaglio processes with greater emphasis on intaglio as an expressive medium. Introduction to color possibilities. Prerequisite: ART 245. May be repeated. Materials charge optional.

346 LITHOGRAPHY II**3 sem. hrs.**

Further study of lithographic processes with greater emphasis on lithography as an expressive medium. Introduction to color possibilities. May be repeated. Prerequisite: 246. Materials charge optional.

349 VISITING ARTIST SEMINAR**2 sem. hrs.**

A seminar-type class taught by visiting artists and members of the Art department faculty, focusing upon contemporary issues of fine arts and the creative process. May be repeated.

351 SPECIAL PROJECTS IN ART**2-6 sem. hrs.**

Special projects in art or art education chosen by the student for advanced investigation with the approval of the instructor. May not duplicate existing courses. Consent of instructor required. May be repeated. Variable credit. Amount of performance per credit to be determined by contract with instructor. Materials charge optional.

352 RENDERING FOR INTERIOR DESIGNERS**3 sem. hrs.**

Perspective sketching and delineations of architectural interiors. Various media and application techniques will be stressed for professional results in presentations. Prerequisites: IT 211 and HEC 242, or ART 103 and 104, or consent of instructor.

355 GLASS II**2-6 sem. hrs.**

Further practice in glass blowing skills coupled with the introduction of techniques to alter and shape cold glass. Prerequisite: ART 255. May be repeated. Materials charge optional. Variable credit. Amount of performance per credit to be determined by contract with instructor.

359 COMPUTER-BASED ART AND GRAPHIC DESIGN**3 sem. hrs.**

Application of advanced two- and three-dimensional graphics programs to solve creative problems in the visual and theatrical arts. Prerequisite: ART 386 or MUS 386 or THE 386 or consent of instructor. Also offered as THE 359.

361 PAINTING IV**2-6 sem. hrs.**

Transitional course. Student encouraged to explore personal directions in close consultation with instructor. Preparation for study on an independent basis. Prerequisite: ART 263. May be repeated. Variable credit. Amount of performance per credit to be determined by contract with instructor.

362 WATERCOLOR I**3 sem. hrs.**

Watercolor as an expressive medium. Techniques, study of masters of watercolor, emphasis on creating pictorial space by illusion, color and the use of transparency. Prerequisite: ART 261.

363 COLOR THEORY**3 sem. hrs.**

A practicum to give the studio art student a context of theoretical and historical color premises as a basis for making color-organized works. Discussion of student work, process, color-formed space and aesthetic analyses. Prerequisite: ART 261.

366 ART OF THE ANCIENT NEAR EAST
3 sem. hrs.

Art and architecture of early civilizations of Egypt, Mesopotamia, and peripheral areas from circa 8000 B.C. to circa 300 B.C. Prerequisite: ART 155 or consent of instructor.

367 GREEK AND ROMAN ART
3 sem. hrs.

Art and architecture of the Aegean, Greek, and Roman worlds from circa 3000 B.C. to the era of Constantine. Prerequisite: ART 155 or consent of instructor.

369 HISTORY OF MEDIEVAL ART AND ARCHITECTURE
3 sem. hrs.

Art and architecture of Europe from circa A.D. 500 to the Renaissance. Prerequisite: ART 155 or consent of instructor.

372 MODERN ARCHITECTURE
3 sem. hrs.

Late 19th and 20th century architecture. Sullivan, Wright, and the Chicago School. European movements involving Le Corbusier, Gropius, and Mies van der Rohe. The great engineers, Maillart, Nervi, Fuller, Candela.

375 ITALIAN RENAISSANCE ART
3 sem. hrs.

Painting, sculpture, and architecture of the 15th and 16th centuries in Italy.

376 NORTHERN RENAISSANCE ART
3 sem. hrs.

Art and architecture of the Renaissance and Mannerism in Northern Europe.

377 HISTORY OF BAROQUE AND ROCOCO ART
3 sem. hrs.

Painting, sculpture, and architecture of Europe during the 17th century.

378 HISTORY OF 19TH CENTURY ART AND ARCHITECTURE
3 sem. hrs.

Concentration is centered on the art of Europe from the French Revolution to the 20th century.

379 MODERN ART
3 sem. hrs.

Painting and sculpture in Europe and America from the late 19th century to 1970.

380 ART IN THE UNITED STATES I: COLONIAL-19TH CENTURY ROMANTICISM
3 sem. hrs.

American art from the Colonial Period through 19th Century Romanticism.

381 ART IN THE UNITED STATES II: AMERICAN IMPRESSIONISM- WORLD WAR II
3 sem. hrs.

American art from late 19th century Impressionism to the advent of World War II.

382 ART IN THE UNITED STATES III: WORLD WAR II TO THE PRESENT
3 sem. hrs.

Complex artistic developments which occurred in the United States from World War II to the present.

383 HISTORY OF PHOTOGRAPHY AS AN ART FORM
3 sem. hrs.

Study of important photographers and the major aesthetic and technical developments of photography from 1840 to the present.

386 INTRODUCTION TO MICROCOMPUTER APPLICATIONS IN THE ARTS
3 sem. hrs.

An introduction to microcomputer systems and their application as creative tools in art, music, and theatre. Prerequisite: 9 hrs. of art, music or theatre and consent of instructor. Also offered as MUS 386 and THE 386.

387 SOFTWARE DESIGN IN THE ARTS
3 sem. hrs.

Designing and programming microcomputer based software which solve particular applications problems in the fine arts. Prerequisite: ART 386 or consent of instructor. Also offered as MUS 387 and THE 387.

390 ADMINISTRATION OF ARTS ORGANIZATIONS
3 sem. hrs.

A survey of information and experiences related to the management and the promotion of art centers, art councils, performing organizations, museums and galleries. Prerequisite: Art, Music or Theatre major or consent of instructor. Also offered as MUS 390 and THE 390.

401 FOUNDATIONS OF ART EDUCATION
3 sem. hrs.

A study of the historical and philosophical foundations of art education.

402 ISSUES IN ART EDUCATION
3 sem. hrs.

Problems in art education from the point of view of research and critical inquiry. May be repeated once.

403 CURRICULUM IN ART EDUCATION
3 sem. hrs.

Examination of various art curriculum schemes K-14; philosophies, content, methods, research, and evaluation. Prerequisite: Teaching experience or consent of instructor.

411 AESTHETIC EDUCATION
3 sem. hrs.

Exploring theories of art, aesthetics, and criticism as they relate to human learning and development.

412 READINGS IN ART EDUCATION
3 sem. hrs.

Familiarization with studies and writings on the nature of art and artistic behavior.

421 PROBLEMS IN TEACHING ART IN HIGHER EDUCATION
2-5 sem. hrs.

Opportunity for observation, participation, and teaching at the college level. Assignments are made with the approval of the department chairperson at least two months prior to registration.

422 COLLEGE PROGRAMS IN ART
2 sem. hrs.

Planning and administration of college and university art programs.

425 PSYCHOLOGY OF ART
3 sem. hrs.

A survey of philosophical and psychological studies of the creative individual; art appreciation and production, and the art product; consideration of social and educational implications.

444 PROBLEMS IN STUDIO WORK**2-6 sem. hrs.**

Individual creative work in painting, sculpture, printmaking, ceramics, weaving, jewelry, design, photography, drawing, or glassblowing. May be repeated. Must have permission of instructor. Variable credit. Amount of performance per credit to be determined by contract with instructor.

451 SPECIAL PROJECTS IN ART**2-6 sem. hrs.**

An individual project in a particular discipline—art education, an area of studio art, or art history—chosen and planned by the student with approval of qualified instructor. May be repeated if material covered is not duplicated. Variable credit. Amount of performance per credit to be determined by contract with instructor.

483 SEMINAR IN PRE-19th CENTURY ART HISTORY TOPICS**3 sem. hrs.**

Selected art history topics. Original research informal lectures, reports, discussions of pre-19th century topics, including painting, sculpture and/or architecture. May be repeated. Consent of instructor required.

484 SEMINAR IN 19TH-20TH CENTURY ART HISTORY TOPICS**3 sem. hrs.**

Selected art history topics. Original research, informal lectures, reports, discussion of 19th-20th century topics including painting, sculpture and/or architecture. May be repeated. Consent of instructor required.

491 INTERNSHIP IN COLLEGE TEACHING IN ART**3 sem. hrs.**

Credit for the course is given in C&I (see C&I 491).

496 MFA EXHIBITION AND SUPPORTIVE STATEMENT**1-6 sem. hrs.**

Comprehensive exhibition of studio work, an exhibition-related written project, and a comprehensive oral examination. MFAs only.

497 INTRODUCTION TO RESEARCH METHODOLOGY**3 sem. hrs.**

Introduction and survey of bibliography, methods of scholarly research, and critical evaluation of research and writings in the field.

498 INTERNSHIP IN ART

(Refer to General Courses)

499 MASTER'S THESIS**1-6 sem. hrs.****597 INTRODUCTION TO RESEARCH METHODOLOGY****3 sem. hrs.**

Introduction to bibliography, methods of scholarly research, and critical evaluation of experimental studies in the field.

599 DOCTORAL DISSERTATION RESEARCH**Variable credit**

Research involving the gathering of data to form the basis for the doctoral dissertation. Approval of chairperson of the department required.

MUSIC (MUS)

Chairperson: Arthur Corra. Office: Centennial Building, East 230.

Graduate Faculty: D. Armstrong, J. Boitos, C. Bolen, P. Borg, A. Chavez, A. Corra, J. Dawson, B. Eichen, G. Foeller, A. Lewis, M. Nicholas, D. Peterson, D. Poultney, J. Rehm, P. Rosene, M. Schoenfeld, P. Schuetz, P. Whitehart, D. Williams.

The music department offers work leading to the Master of Music or to the Master of Music Education degree. The Master of Arts and the Master of Science degrees, which were offered prior to 1988-89 academic year, have been recommended for deletion. Final action on these deletions is pending. All students seeking an advanced degree in music must take placement examinations in the areas of theory, history and literature. Departmental requirements will be determined in part by the results of the placement tests. Students should check with the graduate area adviser to develop their individual programs of study.

All graduate students in music take 12 semester hours as a core requirement. In addition, they select a degree program and sequence consisting of a minimum of 12 semester hours. Music education students follow the M.M.Ed. program. Students working for a M.M. select from four sequences: Musicology, Theory/Composition, Performance, and Music Therapy.

All graduate students enrolled for six or more hours of course work or applied music must perform in an appropriate University performing organization. Any student wishing to take graduate applied music must audition in his/her specific performance area. There is a \$15 program printing fee for students who perform solo recitals on campus. The fee should be paid to the cashiers office.

Students must fulfill the following exit requirements: students in Musicology write a thesis; students in Theory and Composition write a thesis or prepare an original composition; students in Performance perform two recitals; students in Music Therapy may write a thesis or take a written comprehensive examination. Students in the M.M.Ed. degree program may write a thesis, perform two recitals, or take a written comprehensive examination.

Required Core courses (14 hrs.): MUS 457, 458 or 459, 396, one styles course selected from 391-395, and one performing organization (2 hrs) selected from 481-488.

M.M.Ed. requirements (13 hrs.): MUS 360, 461, applied music 430-438, or 440 (4 hrs) and electives in Music Education (3 hrs).

Musicology sequence (12 hrs.): MUS 451 and 9 hrs of electives selected from 391-395, 459 and additional semesters of 451. Proficiency in either German or French required.

Theory and Composition sequence (12 hrs.): MUS 305 or 405, 402, 464, and one elective in theory or composition.

Performing sequence (13 hrs.): applied music 430-438 or 440 (6-10 hrs), 330 or 463 or 309, electives in performance or conducting. Students whose applied performance medium is choral conducting are advised to take 463 and 495; students in instrumental conducting, 309 and 495; students whose performance medium is vocal performance must demonstrate proficiency in Italian, French or German.

Music Therapy sequence (21 hrs.): 460, 462, 465, 498.02, and 9 hrs in supportive field subjects: 300- and 400-level courses selected from, but not limited to, the fields of psychology, education, speech pathology and audiology.

sociology, and social work. Music Therapy courses at the 300 level may not be included as part of the master's sequence. Entrance into the music therapy sequence assumes student has completed or will complete equivalency requirements for music therapy registration. Equivalency includes a degree in music and the following courses (or their substitutes): MUS 194, 294, 340, 341, 360, 362, 398. Depending on the courses taken at the undergraduate level, a student may need to take the following: 9 hours selected from MUS 111, 113, 115, 117, 122, 126; BSC 181; PSY 111, 232, 346; and SAS 106 or 180. See undergraduate catalog for a description of these courses.

Courses

301 FORM AND ANALYSIS IN MUSIC

3 sem. hrs.

Structure of music from simple binary and ternary forms to rondo, theme and variations, and sonata forms.

305 COMPOSITION

3 sem. hrs.

Free composition in larger forms. May be repeated for credit.

307 SURVEY OF MUSIC THEORY

2 sem. hrs.

Review of analytical techniques and procedures. Emphasis on tonal music.

309 ADVANCED ORCHESTRATION

3 sem. hrs.

Prerequisite: MUS 209 or consent of instructor.

330 PEDAGOGY AND LITERATURE

2 sem. hrs.

Methods of teaching class and individual instruction; emphasis on techniques and a comparison of various teaching procedures. Survey of important literature and composers for each medium. (Brass, woodwind, percussion, voice, strings, piano, organ). May be repeated for credit. More than one area may be taken concurrently.

331-338 APPLIED MUSIC

2 or 4 sem. hrs. each

Individual instruction: Advanced Brass 331; Harp, 332.10; Organ, 333; Piano, 335; Strings, 336; Voice, 337; Woodwinds, 338. May be repeated for credit. Permission of appropriate coordinator.

340 INFLUENCE OF MUSIC UPON BEHAVIOR

3 sem. hrs.

A study of the cultural, physiological, and psychological aspects of music with applications to the music therapy field. Prerequisite: Consent of instructor.

341 MUSIC IN THERAPY

3 sem. hrs.

A study of the theory, current practices, and research in the field of music therapy. Prerequisite: MUS 340 or consent of instructor.

360 INTRODUCTION TO PSYCHOMUSICOLOGY

3 sem. hrs.

An introduction to the psychology of music behavior and cognition. Topics include music perception, memory, and learning and their relation to the sensory, formal, and expressive properties of music.

363 CHORAL TECHNIQUES

3 sem. hrs.

Choral rehearsal techniques as used in contemporary music education and other choral performance. Materials for learning and repertoire development, emphasizing modern trends. Prerequisite: Course in conducting or practical experience.

364 CURRENT ISSUES IN MUSIC EDUCATION

1-3 sem. hrs.

Current trends in all areas of Music Education. Course is open to both music majors and non-majors. May be repeated for no more than five semester hours.

365 OPERA PRACTICUM

1 sem. hr.

Practical experience in the staging of an opera or musical, with work ranging from set construction to leading roles. May be repeated for credit.

371 MUSIC FOR THE EXCEPTIONAL CHILD

3 sem. hrs.

Trends in music education for exceptional children. Techniques and materials for a functional program of singing, playing, listening, and creative activities.

384 OPERA PRODUCTION

3 sem. hrs.

Problems of presenting specific representative works from music theatre repertoire. Prerequisite: Consent of instructor. May be repeated for credit.

386 INTRODUCTION TO MICROCOMPUTER APPLICATIONS IN THE ARTS

3 sem. hrs.

An introduction to microcomputer systems and their application as creative tools in art, music, and theatre. Prerequisite: 9 hrs. of art, music or theatre and consent of instructor. Also offered as ART 386 and THE 386.

387 SOFTWARE DESIGN IN THE ARTS

3 sem. hrs.

Designing and programming microcomputer based software which solve particular applications problems in the fine arts. Prerequisite: MUS 386 or consent of instructor. Also offered as ART 387 and THE 387.

390 ADMINISTRATION OF ARTS ORGANIZATIONS

3 sem. hrs.

A survey of information and experiences related to the management and the promotion of art centers, art councils, performing organizations, museums and galleries. Prerequisite: Art, Music or Theatre major or consent of instructor. Also offered as ART 390 and THE 390.

391 MUSICAL STYLES OF THE RENAISSANCE PERIOD

3 sem. hrs.

An analytical inquiry into the compositional techniques evidenced in selected, representative works by major composers of the period. Prerequisite: MUS 204.

392 MUSICAL STYLES OF THE BAROQUE PERIOD

3 sem. hrs.

An analytical inquiry into the compositional techniques evidenced in selected, representative works by major composers of the period. Prerequisite: MUS 204.

394 MUSICAL STYLES OF THE CLASSICAL PERIOD
3 sem. hrs.

An analytical inquiry into the compositional techniques evidenced in selected, representative works by major composers of the period. Prerequisite: MUS 204.

395 MUSICAL STYLES OF THE ROMANTIC PERIOD
3 sem. hrs.

An analytical inquiry into the compositional techniques evidenced in selected, representative works by major composers of the period. Prerequisite: MUS 204.

396 MUSICAL STYLES OF THE TWENTIETH CENTURY
3 sem. hrs.

An analytical inquiry into the compositional techniques evidenced in selected, representative works by major composers of the period. Prerequisite: MUS 204.

402 CURRENT ANALYTICAL TECHNIQUES
3 sem. hrs.

Study and application of analysis systems including those of Schenker, Hindemith, information theory, set theory, and computer analysis. Prerequisite: MUS 307 or acceptable proficiency on theory placement examination.

405 COMPOSITION
3 sem. hrs.

Advanced individual study and direction in music composition at the graduate level. May be repeated for credit. Prerequisite: MUS 305 or consent of instructor.

430-438, 440 APPLIED MUSIC
2 or 4 sem. hrs.

Advanced individual study and direction in music performance at the graduate level. 430 Conducting, 431 Brass, 432 Harpsicord, 432.40 Harp, 433 Organ, 434 Percussion, 435 Piano, 436 Strings, 436.80 Guitar, 437 Voice, 438 Woodwinds, 440 Piano accompanying. May be repeated for credit. Permission to enroll must be obtained from appropriate coordinator.

439 ENSEMBLE
1 sem. hr.

Study and performance of chamber music in any suitable combination of instruments or voices. May be repeated for credit. Prerequisite: audition and consent of instructor.

451 SELECTED TOPICS IN MUSICOLOGY
3 sem. hrs.

A variable content course covering the music of a composer, a country, a style, a medium, a genre. May be repeated for credit with different content; maximum of nine hours to be counted toward a degree.

457 INTRODUCTION TO BIBLIOGRAPHIC METHODS OF MUSIC RESEARCH
3 sem. hrs.

Introduction to bibliographic methods of music research. Critical examination of dictionaries, encyclopedias, catalogues, and other aids to research.

458 APPLICATION OF HISTORICAL RESEARCH METHODS TO MUSIC
3 sem. hrs.

Bibliographic research methods in music applied to individualized historical and analytical research topics. Prerequisite: MUS 457 or consent of instructor.

459 APPLICATION OF SYSTEMATIC RESEARCH METHODS TO MUSIC
3 sem. hrs.

Systematic research methods in music applied to individualized descriptive and experimental music research topics and critical evaluation of music research. Prerequisite: MUS 457 or consent of instructor.

460 RESEARCH IN MUSIC THERAPY
3 sem. hrs.

Study of single subject design tradition with emphasis on appropriate employment of repeated measurement techniques.

461 SEMINAR IN MUSIC EDUCATION
3 sem. hrs.

Study of educational theory in relation to current and persistent issues in music education.

462 SEMINAR IN MUSIC THERAPY
3 sem. hrs.

Study of current practices in the music therapy field with emphasis on current literature and new directions.

463 ADVANCED CHORAL STUDIES
3 sem. hrs.

Selected study subjects in choral music and performance: choral literature, rehearsal techniques, organization, and composers and schools of choral music. Course may be repeated for credit with different content; maximum of nine hours to be counted toward a degree.

464 SELECTED TOPICS IN THEORY PEDAGOGY
3 sem. hrs.

Varied emphasis reflecting current analytical/ instructional philosophies and their implementation through both traditional and computer based strategies. Prerequisite: Teaching experience or consent of instructor. May be repeated if content different.

465 CLIENT RIGHTS IN MUSIC THERAPY
3 sem. hrs.

Study of necessary legal systems to ensure the rights of clients receiving rehabilitative and educational services.

481-488 PERFORMING ORGANIZATIONS
1 sem. hr.

Participation at the graduate level in the major organizations: Wind Symphony, Concert, University, or Marching Band, 481; Symphony Orchestra, 482; Chamber Wind Ensemble, 483; Concert Choir, 484; Glee Club, 485; Treble Choir, 486; Civic Chorale, 488. May be repeated for credit.

491 INTERNSHIP IN COLLEGE TEACHING IN MUSIC
3 sem. hrs.

Credit for the course is given in C&I (see C&I 491).

495 PRACTICUM IN CONDUCTING
2 sem. hrs.

An inservice conducting experience with community and university ensembles for graduate students involved in applied conducting. May be repeated for credit; maximum of nine hours to be counted toward a degree. Prerequisite: Applied Conducting, MUS 430.

496 RECITAL
2 sem. hrs.

A public performance in the student's principal applied area of instruction. Course may be repeated once. Consent of Graduate Adviser required.

498 PROFESSIONAL PRACTICE IN MUSIC 1-3 sem. hrs.

Provides graduate students with the opportunity to obtain supervised work experience in music. Available as 498.01 Music Education for 1-3 sem. hrs. or 498.02 Music Therapy Internship for 1 sem. hr. Music Therapy Internship may be repeated to a maximum of 4 sem. hrs. Refer to General Courses.

499 MASTER'S THESIS 1-6 sem. hrs.

THEATRE (THE)

Chairperson: Alvin Goldfarb. Office: Centennial Building, West 212.

Graduate Faculty: E. Andreasen, M. Counts, W. Evans, K. Geist, A. Goldfarb, D. Harris, J. Kirk, R. Mottram, P. O'Gara, C. Pritner, P. Ritch, W. Ruyle, J. Scharfenberg, J. Sipes, P. Snoyer, F. Vybiral, D. Wilhelm, S. Zielinski.

Three graduate degrees are offered by the Theatre Department: Master of Arts, Master of Science, and Master of Fine Arts. The M.A. and M.S. degrees are general graduate degrees based on the presumption that the student should experience a broad range of courses covering most aspects of theatre.

The Master of Fine Arts is generally considered the appropriate terminal degree program for persons in the performance/production areas of theatre; the MFA offers concentration in acting, costume design, directing, and scene design. The program is designed to prepare theatre practitioners and teachers in the theory and practice of theatre art.

Master of Science

The Master of Science degree is awarded to a student who has completed a minimum of 32 hours in theatre or approved related courses, and has completed a thesis or passed a departmental comprehensive examination. The masters degree candidate must take a sequence of courses which includes the following: Theatre 497, included in 9 hours of history/theory-criticism with at least 3 in history and 3 in theory/criticism; 3 hours in acting; 3 hours in directing; 3 hours in costuming; 3 hours in design/technical theatre; and 11 hours of approved electives.

Master of Arts

The Master of Arts degree is awarded to a student who has completed the requirements outlined above. In addition, the student must have completed the following requirements: the student must have earned credit for a minimum of two years of a foreign language at the college level, or must demonstrate a reading knowledge of a foreign language. This latter requirement is met by passing an examination administered by the appropriate foreign language faculty. The student must also have earned a minimum of 32 semester hours of credit in Humanities and the Social Sciences in addition to work in foreign language. These requirements may be met by satisfactory work at either the graduate or undergraduate level.

Master of Fine Arts

The Master of Fine Arts degree is a 60-hour minimum program that will take most students three years to com-

plete. It emphasizes both theory and practice. Candidates for the degree are expected to demonstrate proficiency in at least one of the following areas: Acting, Costume Design, Directing, Scene Design. Candidates must demonstrate the ability to understand the conceptual basis of their art and to articulate that understanding to others. The MFA is a professionally oriented degree that assumes that the student will be competent as a practitioner and teacher; therefore, each candidate will be required to complete Theatre 497 and a three-hour course that provides a supervised experience in college teaching. Professional Practice (1-12 hours) is available in professional/educational theatres for candidates meeting eligibility requirements.

Admission

All regular criteria for admission to a terminal degree program in the Graduate School of the University and for graduate study in Theatre will apply with the exception of the GRE requirement.

Prospective graduate students will be eligible to apply for admission to the Master of Fine Arts program after completing an audition/interview. Each area faculty will determine the admission of candidates in their area. In their second semester admitted MFA candidates will be evaluated for retention in the program. Subsequent annual reviews will be held to determine continuing retention.

Academic Advisers

If a candidate is retained after the initial annual evaluation, the chairperson of the department, in consultation with faculty whom the chairperson deems appropriate, will select the candidate's Portfolio Committee. The committee chairperson must come from the student's studio area.

Transfer and Residency

Students who hold no earned master's degree usually can transfer no more than six semester hours of credit into this program. Completed MS or MA degrees will be evaluated for transfer after the student has been admitted to the MFA program. The student's MFA committee will supervise all evaluations. A minimum of 32 hours must be taken at Illinois State University.

The candidate must spend at least two consecutive full terms in residence. A full term may be interpreted as one semester, with a class load of 8-15 hours, or a summer session with a class load of 6-9 hours.

The MFA Portfolio

Each semester of enrollment the MFA candidate should enroll in Theatre 501, MFA Portfolio, for one hour credit. The portfolio is the backbone of the Master of Fine Arts program. It is designed to ensure the regular and systematic evaluation of the student's progress. The portfolio is a collection of materials, including examples of the student's work where appropriate, reviews, evaluations and other artifacts which may record or characterize the student's experience in the program. The portfolio also contains the student's responses to evaluations as well as statements from the portfolio committee which provide direction for the student's future work in the program.

The student must have a portfolio evaluation for each full semester he/she is in the program. The written results of that evaluation are included in the portfolio. The portfolio provides a cumulative record of the student's progress which is carried over from semester to semester.

Finally, the portfolio, with its record of the student's activities in the program, provides the major objective

basis for awarding the degree. Although the student may engage in major creative projects during his/her program, the portfolio stands in lieu of the traditional thesis or creative thesis project which is the culminating experience in many programs.

Qualifying/Comprehensive Examination: A qualifying examination is required prior to the exit portfolio presentation. It may be comprehensive to the extent that it examines the candidate's knowledge of the discipline of theatre; it may include graduate work the student is presenting for the degree; and it may include demonstration of proficiency. The examination will be conducted by the student's MFA portfolio committee. The student may request that other faculty members with whom he/she has taken course work participate in the qualifying examination.

Exit Portfolio: After receiving permission from the Portfolio Committee, the student may schedule an exit portfolio presentation. At this time the student's work is reviewed and presented to the Portfolio Committee in the presence of the Graduate Faculty. If the work is deemed satisfactory by the Committee, the student is recommended to the Graduate School for the granting of the degree, **Master of Fine Arts in (specialty)**. To be eligible for the exit portfolio presentation, the student must (1) present a grade average of B or above with not more than six (6) hours of C. The student must (2) have completed (or will complete in the current semester) two semesters of full-time resident study; (3) a plan of study must be on file with the Graduate School; and (4) the student must have passed a qualifying examination.

Typical M.F.A. Program

Students will encounter a range of experiences that will prepare them to be competent in their specialty. The M.F.A. candidate is required to complete a minimum of 18 hours in his/her studio area at ISU. Additional experiences will ordinarily include:

- A. 12 hours from the areas of theatre history, theatre criticism and theory, and dramatic literature, including Theatre 497.
- B. 6 hours in performance-related courses outside the student's specialty.
- C. 3 hours in college teaching.
- D. 6 hours from outside the theatre area (they may be in film, oral interpretation, creative drama, or in areas outside of the department.)

After being admitted to one area of concentration in the MFA program and completing 12 hours of course work under the guidance of the portfolio committee, the student, with support from his/her portfolio committee, may request an audition for a second area of concentration. Such requests should be made in writing to the Graduate Committee and detail the reasons why such action will aid the scholarly and artistic growth of the student. If admitted in two areas, the student must complete a minimum of 18 hours in each area. A student who undertakes two areas of concentration should expect to be enrolled beyond the normal three-year period. Permission to audition in a second area will be granted only in exceptional cases. The portfolio committee may prescribe experiences in addition to the above depending on the student's demonstrated competencies.

A maximum of one year may be taken in an off-campus internship program.

Students are required to enroll in Theatre 501, M.F.A. Portfolio during each semester of residency.

Courses

303 THEATRE ENCOUNTER

1-3 sem. hrs.

Student-initiated projects in acting, directing, design, and playwriting presented and critiqued. Emphasis is on process rather than final product. May be repeated to total 6 hrs. MFA student may enroll for credit in each term of residency.

309 DIRECTED PROJECTS

1-3 sem. hrs.

Individually supervised study for the advanced student. Prerequisite: Consent of instructor. May be repeated.

311 VOCAL TECHNIQUE FOR THE ACTOR I

3 sem. hrs.

Introductory studies and exercises in relaxation, breathing, alignment, tonal focus and articulation, leading to an understanding of vocal life and the vocal demands placed upon the actor. Prerequisites: THE 110 or equivalent and consent of instructor. Designed for juniors and seniors with prior vocal experience in acting. Not for credit if had THE 111.

312 IMPROVISATION

3 sem. hrs.

Detailed exploration of improvisational skills as a tool for rehearsal and performance. Prerequisites: THE 110 or equivalent and consent of instructor. Not for credit if had THE 112.

313 SCRIPTED MATERIAL

3 sem. hrs.

Analysis, rehearsal and performance of representative scripts. Prerequisites: THE 110 or equivalent and consent of instructor. Not for credit if had THE 113.

314 ACTING STYLE: DISCOVERY AND PERFORMANCE

3 sem. hrs.

Analysis, rehearsal, and performance technique examined through the work of a particular playwright. Prerequisites: THE 110 or equivalent and consent of instructor. May be repeated.

315 ACTING: EXPLORING CHARACTERIZATIONS THROUGH ANIMAL EXERCISES.

3 sem. hrs.

Techniques of actor research and characterization using animal models. Exploration of primitive behavior patterns requiring the actor's total physical and psychological commitment. Prerequisites: THE 110 or equivalent and consent of instructor. May be repeated.

316 ACTING FOR THE MUSICAL THEATRE

3 sem. hrs.

A study of acting problems inherent in performing for various forms of musical theatre. Work to include preparation of musical numbers and scenes. Prerequisite: Consent of instructor.

317 VOCAL TECHNIQUE FOR THE ACTOR II

3 sem. hrs.

Advanced studies in vocal discipline for actors, including exercises in breath control, relaxation, alignment, tonal focus and articulation. Prerequisites: THE 111 or 311 or equivalent and consent of instructor.

318 VOCAL TECHNIQUE FOR THE ACTOR III

3 sem. hrs.

Further development of the actor's vocal discipline and resources focusing on specialized textual study, character acting and vocal improvisation. Repeatable to 9 hrs. Prerequisite: THE 317 and consent of instructor.

320 STAGE MOVEMENT I**3 sem. hrs.**

Fundamental principles of stage movement; physical improvisation; traditional stage deportment; performing in period costumes. Prerequisite: Consent of instructor.

321 STAGE MOVEMENT II**3 sem. hrs.**

Advanced movement techniques including study of period dances, stage violence, and mime. Prerequisites: THE 320 and consent of instructor.

322 AUDITIONING**3 sem. hrs.**

Preparation, performance and evaluation of numerous audition projects; discussion of the actor's search for employment in the professional theatre. Prerequisites: THE 314 or 411, and consent of instructor.

323 DIAGNOSTIC STUDIO FOR ACTORS**3 sem. hrs.**

Performance work specifically and individually devised to treat the diagnosed needs of each student's development as an actor. Prerequisites: THE 322 and consent of instructor.

324 STAGE MOVEMENT III**3 sem. hrs.**

Continuation of movement training, varying from semester to semester in special areas including mime, stage combat, mask, and circus techniques. Repeatable to 9 hrs. Prerequisites: THE 320, 321 and consent of instructor.

330 THEATRICAL COSTUME DESIGN**3 sem. hrs.**

Research and practical application to theatrical costume designing; use of dramatic analysis. Prerequisite: THE 130. May be repeated to total 6 hrs. toward master's degree. MFA student may enroll for credit in each term of residency.

331 HISTORY AND STYLES OF STAGE COSTUMING**3 sem. hrs.**

The costume's reflection of cultural and social milieu, and the costume's application to the stage. Prerequisite: THE 130.

332 COSTUME CONSTRUCTION**3 sem. hrs.**

Pattern drafting, draping, fitting, and specialized construction techniques for the theatrical costume craftsman. Prerequisites: THE 130 and consent of instructor. Lab arranged.

333 COSTUME CRAFTS**3 sem. hrs.**

Theory and techniques of costume construction and use of special materials. Prerequisite: THE 130. Materials charge optional.

340 DIRECTING WORKSHOP**3 sem. hrs.**

Principles and methodologies of stage direction applied to particular problems in a workshop format. Prerequisite: THE 240. May be repeated up to 6 hrs. toward degree program.

341 ORAL INTERPRETATION OF LITERATURE II**(Directing/Performance)****3 sem. hrs.**

A study of the group forms of Interpretation Readers Theatre and Chamber Theatre, with experiences to provide the student with practical applications of theory and principle. Prerequisites: THE 101.

344 PRINCIPLES OF THEATRE MANAGEMENT**3 sem. hrs.**

Course introduces and demonstrates the practices and procedures of theatre management in today's theatre. Lab arranged.

348 PLAYWRITING**3 sem. hrs.**

Playwriting techniques of selected masters with practical application of techniques in writing original plays. Also offered as ENG 348.

359 COMPUTER-BASED ART AND GRAPHIC DESIGN**3 sem. hrs.**

Application of advanced two- and three-dimensional graphics programs to solve creative problems in the visual and theatrical arts. Prerequisite: ART 386 or MUS 386 or THE 386 or consent of instructor. Also offered as ART 359.

361 ADVANCED STAGE LIGHTING**3 sem. hrs.**

Lighting design for proscenium and non-proscenium production; attention to system design. Prerequisites: THE 160, 260.

362 STAGE DESIGN**3 sem. hrs.**

Nature, function, and aesthetics of scene design, with practice in composition. Prerequisites: THE 160, 260. Lab arranged.

363 ADVANCED DESIGN**3 sem. hrs.**

Intensive work in the areas of design and rendering for the stage; emphasis upon new materials and techniques. Prerequisite: THE 362. May be repeated to total 6 hrs. toward master's degree. MFA student may enroll for credit in each term of residency.

364 ADVANCED PROJECTS IN DESIGN**2-4 sem. hrs.**

A study of design and production problems as they relate to productions being mounted by the Theatre Department. Emphasis placed upon creative and collaborative aspects of producing theatre. May be repeated. A maximum of six hours to be applied toward the M.S. or M.A. degree.

365 SCENE PAINTING**3 sem. hours**

Development of the skills necessary for the organization, preparation, and execution of painted scenery for the stage.

367 SCENOGRAPHIC TECHNIQUES**3 sem. hrs.**

A study of descriptive geometry and drafting techniques that are necessary in developing three-dimensional stage space and scenic units into plans, elevations, and working drawings. Prerequisites: IT 210 or equivalent.

370 HISTORY OF THE CINEMA**3 sem. hrs.**

Historical and aesthetic development of the cinema. Lab: Screening of significant films.

371 FILM THEORY AND CRITICISM**3 sem. hrs.**

Theories relating to art of film making. Taught in fall of even numbered years.

376 THEATRE HISTORY I**4 sem. hrs.**

The study of the history of drama and theatrical production from their origin to approximately 1775. Prerequisite: THE 100

377 THEATRE HISTORY II**4 sem. hrs.**

The study of the history of drama and theatrical production from the late eighteenth century to the present. Prerequisite: THE 100 and 376.

378 SHAKESPEARE ON STAGE**3 sem. hrs.**

An intensive study of Shakespeare's plays in production. For the student with adequate familiarity with Shakespeare and his work. May be repeated once. Cross-listed with ENG 378.

380 ADVANCED CREATIVE DRAMA**3 sem. hrs.**

In-depth work in creative drama, includes drama experiences, examining theories, comparing teaching strategies, and developing curricula. Prerequisite: THE 280 or C&I 250.

381 CREATIVE DRAMA PRACTICUM**2-3 sem. hrs.**

Students will gain practical experience in creative drama teaching by leading a class in drama under faculty supervision for a semester. Prerequisites: THE 280 or C&I 250 and consent of instructor. The course is graded (A-F).

385 PRINCIPLES OF THEATRE EDUCATION**5 sem. hrs.**

Philosophies of theatre education, teaching strategies, co-curricular programs, textbook analysis, professional organizations, and related field experience. Prerequisites: THE 285, C&I 200 (6 hrs) or 200.03 or 215 (2 hrs) or consent of instructor. Includes clinical experiences.

386 INTRODUCTION TO MICROCOMPUTER APPLICATIONS IN THE ARTS**3 sem. hrs.**

An introduction to microcomputer systems and their application as creative tools in art, music, and theatre. Prerequisite: 9 hrs. of art, music or theatre and consent of instructor. Also offered as ART 386 and MUS 386.

387 SOFTWARE DESIGN IN THE ARTS**3 sem. hrs.**

Designing and programming microcomputer based software which solve particular applications problems in the fine arts. Prerequisite: ART 386 or consent of instructor. Also offered as ART 387 and MUS 387.

390 ADMINISTRATION OF ARTS ORGANIZATIONS**3 sem. hrs.**

A survey of information and experiences related to the management and the promotion of art centers, art councils, performing organizations, museums and galleries. Prerequisite: Art, Music or Theatre major or consent of instructor. Also offered as ART 390 and MUS 390.

402 THEATRE PRACTICUM**1 - 3 sem. hrs.**

Production experience in the areas of acting, costume, and scenery preparation, production crew, box office, and stage management. May be repeated.

408 DIRECTED PROJECTS IN ACTING AND DIRECTING**1-4 sem. hrs.**

Individually supervised projects in acting and directing offered by contract in arrangement with graduate faculty. Repeatable. Prerequisite: consent of instructor.

447 SEMINAR IN PLAY DIRECTION**3 sem. hrs.**

An examination of the principles and theories underlying good directing practice. Major theories of the past will be surveyed as well as contemporary practices.

463 TWENTIETH CENTURY STAGE DESIGN**3 sem. hrs.**

A lecture-seminar course investigating major designers and movements of twentieth century design for the stage.

464 ADVANCED PROJECTS IN DESIGN**2-4 sem. hours.**

A study of design and production problems as they relate to productions executed by the Theatre Department. Prerequisite: Consent of instructor. May be repeated.

468 THEATRES AND AUDITORIUMS: PLANNING AND DESIGN**3 sem. hrs.**

Technical problems in stage and auditorium design and planning: emphasis on stage rigging, lighting, and sound equipment. Laboratory. Prerequisite: THE 362.

474 THE AMERICAN THEATRE**3 sem. hrs.**

Development of the theatre, its dramatic literature, and its arts and crafts in America from its beginning to present.

475 HISTORY OF THE MODERN THEATRE**3 sem. hrs.**

Developments in stagecraft, theatre architecture, directing, acting, and theatrical theory from the late 19th century to the present.

476 SEMINAR IN THEATRE HISTORY**3 sem. hrs.**

A seminar in theatre history with the topic changing each time the course is offered. Seminar in Theatre History may be repeated for up to 6 hours.

478 DRAMA FORM**3 sem. hrs.**

Attitudes toward drama form from classical Greek to modern theatre are examined from the perspective of contemporary theories of the nature of dramatic action.

479 DRAMA THEORY AND CRITICISM**3 sem. hrs.**

Theatre practice from the point of view of a contemporary aesthetic. Subject of investigation will change from semester to semester.

497 INTRODUCTION TO RESEARCH METHODOLOGY IN THEATRE**3 sem. hrs.**

Selection of a research problem, collection of data, types of research, the research report, and use of the library and computer resources in connection with the research problem as applied to theatre history, acting, directing, playwriting, design, criticism, and teaching.

498 PROFESSIONAL PRACTICE**1-12 sem. hrs.**

Refer to index.

499 MASTER'S THESIS**1-6 sem. hrs.**

Refer to index.

501 M.F.A. PORTFOLIO**1 sem. hr.**

A student accepted into the M.F.A. program **must enroll for credit** under the supervision of the Portfolio Committee Chairperson.

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Professor, Department of Business Education and
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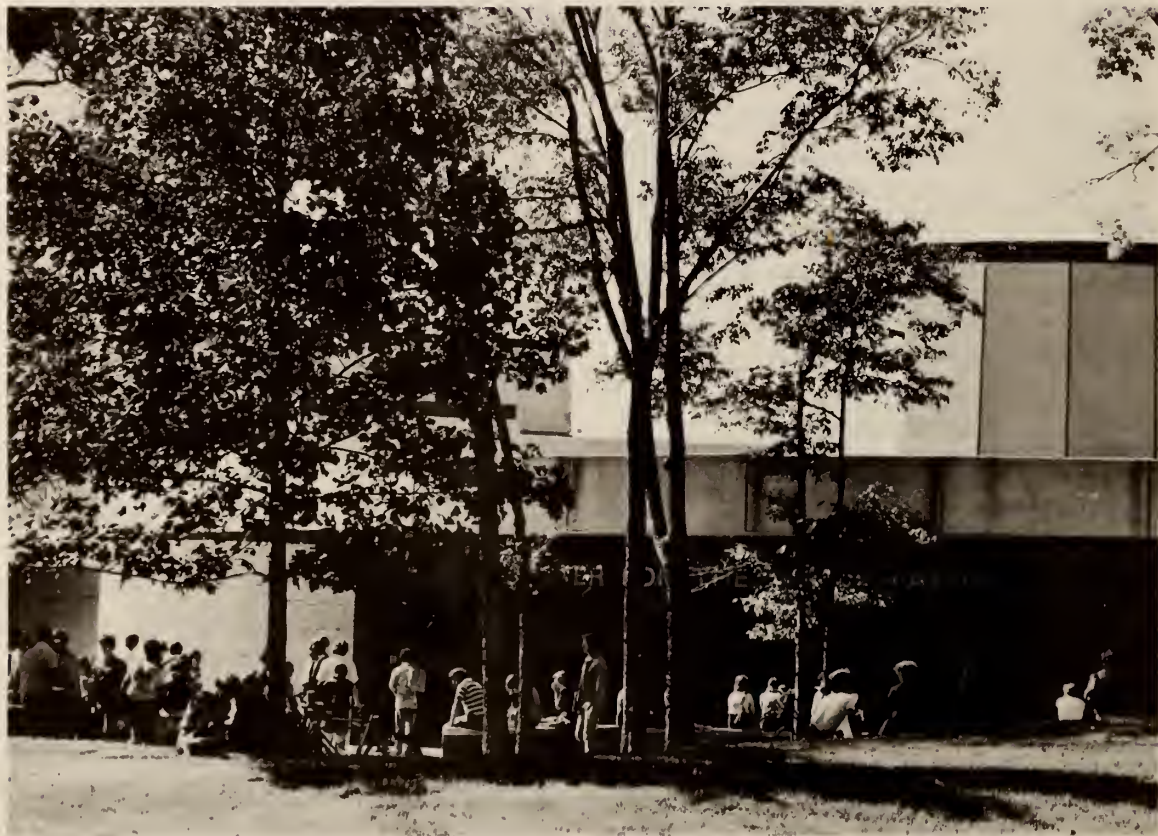
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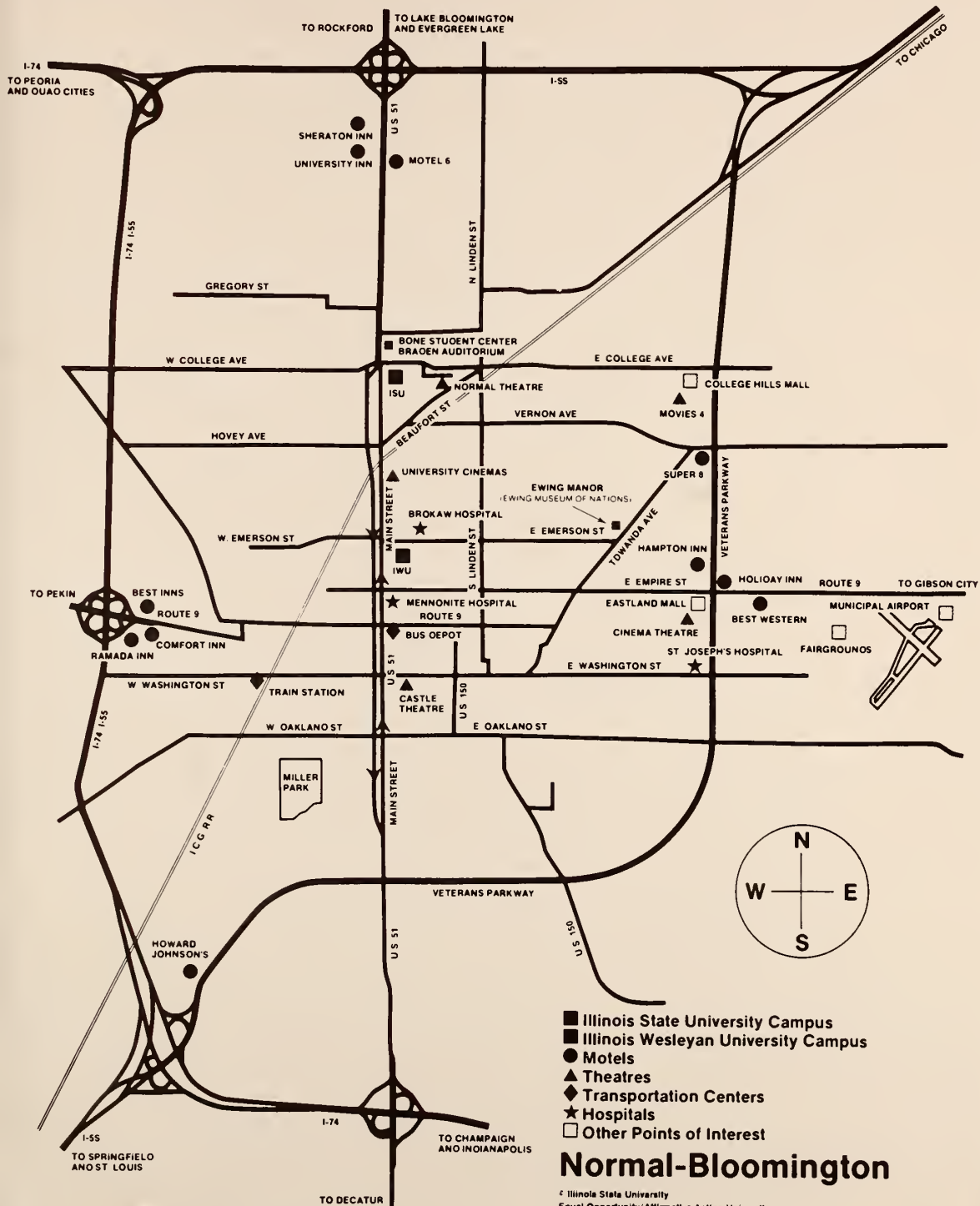
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